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MICHIGAN:

ITS

GEOGRAPHY, HISTORY, RESOURCES

AND

CIVIL GOVERNMENT.

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ITS

GEOGRAPHY, HISTORY,

RESOURCES

AND

CIVIL GOVERNMENT.

By F. M. KENDALL.

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PREFACE.

For many years the course in Geography in the Public Schools in Grand Rapids has been supplemented, in the Eighth Grade, by a special study of our own state; and a pamphlet prepared by the Commissioner of Immigration in 1881, entitled, "Michigan and Its Resources," was used for this purpose.

After the distribution of the third edition, in 1884, the State ceased to publish the pamphlet, and, in time, it became necessary to provide a substitute for it or abandon the special study of Michigan.

Accordingly, the Eighth Grade teachers assisted in the hasty compilation of a pamphlet which was used with a good degree of success.

This has now been entirely re-written and much new material has been added.

In the preparation of this pamphlet an attempt has been made to present, in small compass, facts and information that will lead children to an intelligent comprehension of the resources and institutions of their own State; and it is believed to contain material not to be found elsewhere in any one publication.

The chapter on Civil Government is compiled, by permission, from "Cocker's Civil Government of Michigan."

Free use has also been made of the following: "Michigan and Its Resources," Cox's "Primer of Michigan History," Tackabury's Atlas of Michigan, Ford's "Michigan Geography" as published in "The School Moderator," and Cooley's "Michigan."

F. M. KENDALL.

Superintendent's office,
Grand Rapids, Mich., August 31, 1889.

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PART I—GEOGRAPHY.

SECTION I—POSITION AND SIZE.

The State of Michigan is situated somewhat east of the geographical centre of North America, and about one-third of the distance from the Atlantic to the Pacific Oceans. It is in the northern tier of States, only five of which reach a higher latitude*.

The mainlands of the State lie between the parallels of 41° 42′, and 47° 29′ north latitude, and between the meridians of 82° 24′ and 90° 32′ west longitude. New York and the New England States on the Atlantic coast, and Washington and Oregon on the Pacific coast, lie approximately between the same parallels. In Europe, northern Spain, southern France, Switzerland, Italy and Austria are also in the same latitude.

Michigan is enclosed on all sides, excepting the south and northwest, by the Great Lakes and their connecting rivers. Lake Superior forms its northern boundary, Lakes Huron, St. Clair and Erie, with the connecting rivers, (including the St. Mary's river) its eastern boundary, and Lake Michigan the greater part of its western boundary. On the south it is bounded by the States of Ohio and Indiana, and on the northwest by the rivers Montreal, Brule and Menominee, and the State of Wisconsin.

The area of the State is 58,915 square miles, of which 1,485 square miles is water surface. Michigan is 9,745 square miles larger than the State of New York, 13,700 larger than Pennsylvania, 17,855 larger than Ohio, 22,565 larger than Indiana, and 2,265 larger than Illinois. It is almost as large as the six New England States taken together; and it is larger than England and Wales combined.

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* Isle Chapeau or Gull Islet (Lat. 48° 13′) off the northeastern extremity of Isle Royale, is 57 miles further north than the northernmost part of Maine, and it is only about 9 miles from the international boundary line in Lake Superior, which at this point is in lat. 48° 20′.

The State consists of two irregular peninsulas known as the Lower Peninsula and the Upper Peninsula. They are separated from each other by Lakes Michigan and Huron, which are connected by the Straits of Mackinac. The extreme length of the Upper Peninsula is 318 miles, and its extreme breadth is 164 miles. The Lower Peninsula is 277 miles long, and 197 miles wide in its widest part. The Upper Peninsula contains nearly two-fifths of the entire area of the State.

SECTION II—SURFACE AND DRAINAGE.

The two peninsulas are strongly contrasted in surface, soil and climate. The northern is rugged, with numerous rocky exposures; while the southern consists of plains, plateaus, gentle undulations and moderate hills, scarcely any of which are too steep for tillage. The former is, for the most part, a mineral region, the latter an agricultural region. The climate are also as distinct as their location and topography.

The surface of the Lower Peninsula rises gently from the surrounding lakes toward the interior, where it reaches an elevation of 400 to 600 feet. In the northern part of the peninsula, however, the central plateau reaches a height of about 800 feet, and a few points are as high as 1,100 feet above the lakes.

A characteristic feature of the Lake Michigan shore is the series of sand hills blown up by the prevailing westerly winds. These attain elevations up to 100 and 200 feet. At Grand Haven, the highest reaches an altitude of 215 feet. These sands are continually shifting before the wind, and they are accordingly, making constant encroachments upon areas occupied and improved by man. Back of these sandhills the surface is generally depressed, and frequently occupied by a marsh or lake.

"Viewing the Peninsula as a whole, we discover, first of all, a remarkable depression stretching obliquely across from the head of Saginaw Bay, up the valley of the Saginaw and Bad rivers, and down the Maple and Grand rivers, to

Lake Michigan. This depression attains, nowhere, an elevation greater than 72 feet above Lake Michigan. This elevation is in the interval of three miles, separating the waters flowing in opposite directions. This spot was chosen in 1837 as the location for a canal, connecting Saginaw Bay with Lake Michigan. It is obvious, that when the lakes stood at their ancient elevations, their waters communicated freely across this depression, and divided the peninsula into two portions, of which the northern was an island."* This depression has deen designated the "Grand Saginaw Valley."

Entering upon a more detailed description of the surface, it is convenient to divide the Lower Peninsula into three sections, to be known as the Southern, Central and Northern sections, respectively.

The Southern section, embracing four tiers of counties, comprises the oldest and most developed part of the State. Formerly it was densely covered with hardwood forests ; but these have been in large measure cleared away, and a rich agricultural region has taken their places.

From the map it will be seen that this section is mainly drained into Lake Michigan. The main water shed extends through Hillsdale, Jackson, Ingham, Livingston, and Shiawassee counties. Its general elevation above Lake Michigan is 400 to 600 feet. The highest plateau south of the "Grand Saginaw" valley is in Hillsdale county, where an elevation of 613 feet above the level of Lake Michigan is reached. In the extreme northeastern part of the county "are two peaks which, perhaps, constitute the real culminations of the Hillsdale summit. Here, within an area of two miles by three, we may view the head waters of the St. Joseph, Kalamazoo, Grand and Raisin rivers ; and an area of four miles square would include, with these, the highest tributaries of the Maumee."* The first three rivers, which are among the largest in the State, flow westward into Lake Michigan, and the other two flow eastward into Lake Erie.

*Winchell.

The Central section embraces the next three tiers of counties, and comprises what was formerly known as the principal pine lumbering region of the State. The water-shed lies about midway between Lakes Huron and Michigan, and traverses Gratiot, Montcalm, Mecosta and Clare counties. Its altitude is about 300 feet above the lakes.

The great valleys of the Saginaw and the Muskegon rivers are in this section. The Saginaw, with its tributaries, drains the eastern slope. The Muskegon, the largest river in this section, flows west from the water-shed into Lake Michigan. The central portion of the Huron peninsula, which lies east and southeast of Saginaw Bay, is a plateau some 400 feet in height. It was at one time heavily timbered, but it is now given up mostly to agriculture. It has a water-shed of its own, extending in a southwesterly direction, to meet the main axis of the Lower Peninsula. Several small streams flow both ways into Saginaw Bay and Lake Huron.

The northern section comprises the remaining counties of the Lower Peninsula. It is the least settled portion, having been last opened to settlement. The soil is generally well adapted to agriculture, and in the western portion, about Traverse Bay, it seems to be specially adapted to the raising of fruits. In the region bordering on the lakes, and on the large streams which empty into them, pine lumbering operations are extensively carried on. There is also a large amount of valuable hard wood found in this section.

The water-shed extends northward through Roscommon, Crawford, Otsego and Cheboygan counties. In Otsego county is found the highest land in the Lower Peninsula. The general elevation of the whole central portion of this section is 600 to 800 feet, but in Otsego county it attains a height of 1,100 feet above Lake Michigan. The chief rivers which drain this section are the Au Sable on the east, and the Manistee on the west. Other smaller streams flow eastward, northward and westward from this summit.

The Upper Peninsula may, in like manner, be divided into three sections, the Eastern, Middle and Western.

The Eastern section embraces the country east of a line drawn from Marquette Bay to Green Bay. It possesses a fertile soil, an equable climate, and although not yet developed, it is known to be capable of agricultural development of a high order. "An elevated range of limestone hills extends across the entire southern border from Point Detour to Little Bay de Noquet. These hills rise to a height of 200 to 300 feet above the lakes, on the shores of which they sometimes appear as bold bluffs cut into weird and romantic forms by the action of the elements. The bluffs of Mackinac Island are 140 feet high, and the central plateau is 300 feet high. Along the north shore of this peninsula is a similar range of hills, in some localities even more lofty and bold than those on the south shore. These extend from Point Iroquois westward, following the direction of the shore line, and sometimes rise to an altitude of 600 feet above the lake, from which they appear as lofty headlands, or perpendicular escarpments, as at Grand Sable and Pictured Rocks. The streams which break through this range are interrupted by falls, some of them 40 to 100 feet in height. The scenery is very attractive." * Just east of Grand Island are the famous Pictured Rocks, a line of water-worn and frequently precipitous bluffs of variously colored sandstone extending about twelve miles along the shore of the lake. They are rarely more than 80 to 100 feet high, but the hills rising back from their tops reach 150 to 200 feet. The rocks are worn into grotesque forms, some of which resemble ruined castles, temples, arches, etc.

Inland the surface of the country is quite level, and for the most part heavily wooded with hard wood forests. Throughout the whole interior of the Peninsula the streams are sluggish, and the regions to the east of Point Iroquois, and the upper waters of the Tequamenon, are largely occupied by marshes abounding in peat and bog iron ore.

* Winchell.

East of Lake Manistique, the drainage is chiefly into Lake Superior, St. Mary's river and Lake Huron. The Tequamenon is the largest river.

The principal portion of the drainage to the west of this lake is into Lake Michigan, the water-shed running east and west by a zig-zag line, within six to ten miles of Lake Superior. The principal streams are the Whitefish and Manistique rivers.

The middle section extends from the eastern section to a line drawn from the head of Keweenaw Bay to the head of Montreal river.

The water-shed extends westward to within ten miles of Keweenaw Bay, where it bends and runs in a southwesterly direction to the boundary of the State. Its greatest altitude above Lake Michigan is 1,250 feet. Lake Michigamme lies at an altitude of 966 feet,

Along the water-shed the country is wild and mountainous; but the central portion of the section is an elevated plain, well watered and containing immense tracts of valuable pine land.

The principal rivers of this section are the Escanaba, Menominee and Michigamme, all of which flow southeasterly from the main water-shed.

The western section includes what is known as the Mineral Range, and is famous for its copper mines. The water-shed is rugged and mountainous, and extends from Keweenaw Point westward parallel with the coast, to the Ontonagon river. West of the river, the Porcupine Range extends in a southwesterly direction to the State line; its altitude is 1,000 to 1,400 feet above the lake. Keweenaw Point is a rocky promontory extending far into Lake Superior. Mt. Houghton, near the head of the point, is 884 feet above the lake.

In the Mineral Range are the famous deposits of copper. A similar range is found running in a nearly parallel direction in Isle Royale, where like deposits have also been found.

SECTION III—RIVERS.

Owing to its peculiar location with reference to the Great Lakes, Michigan possesses no large navigable rivers; although its numerous streams are of inestimable value to the lumbering interests of the state in floating the logs from the forests to the mills. The Detroit, St. Clair, and St. Mary's rivers, which form part of the eastern boundary of the state, are really straits connecting great fresh water seas. They are navigable for the largest lake vessels and their commercial importance to the state can hardly be overestimated.

The Detroit River, sometimes called "the Dardanelles of the New World," is 28 miles long and from one to three miles wide. This noble and beautiful river gives to Detroit the best harbor on the Great Lakes and furnishes the city with one of the finest water supplies in the world.

The St. Clair River, connecting Lakes St. Clair and Huron, is also 28 miles long and about one and a quarter broad.

The St. Mary's River, which forms the eastern boundary of the Upper Peninsula, is 63 miles long and varies in width, often expanding into lakes. Near the head of the river is the government ship canal around the rapids of St. Mary's.

The interior rivers of the Lower Peninsula have a general east and west direction from the main water-shed.

The elevated plateau in Hillsdale county, already mentioned, is the source of the four largest rivers in the southern part of the state, viz: the Grand, the Kalamazoo and the St. Joseph, flowing westward into Lake Michigan, and the Raisin flowing eastward into Lake Erie.

The Grand river is the longest in the state (270 miles). It is navigable for small steamers from the mouth to Grand Rapids, 40 miles. At this point the fall in the river bed produces the *rapids*, whence the name of the city.

The Kalamazoo river is about 200 miles long, and the St. Joseph 250 miles long. Both are navigable for short distan-

ces from their mouths and they furnish valuable water power.

The Raisin and the Huron are the largest rivers flowing into Lake Erie from Michigan. They drain a beautiful section of the state and afford excellent water power.

In the central portion of the peninsula are the Muskegon and the Saginaw rivers. The Muskegon rises in Higgins and Houghton lakes, which lie 589 feet above Lake Michigan, and after flowing 180 miles through valuable timber lands it empties into Lake Michigan. It is valuable chiefly for logging purposes, but in some localities it furnishes excellent water power. The Saginaw, formed by the union of the Cass, the Flint and the Shiawassee from the east and south, and the Tittibawassee and its tributaries from the north, is only 22 miles long, but it is navigable by lake steamers its entire length, and is therefore one of the most important rivers in the state.

In the northern part of the peninsula the Manistee and Au Sable rivers rise on opposite sides of the main water-shed at its highest point in Otsego county; the former flows westward into Lake Michigan, and the latter eastward into Lake Huron. Both are important in their relation to the lumber interests of the territory which they drain.

The Thunder Bay and Cheboygan rivers flow into Lake Huron from the extreme north end of the peninsula, the latter being the outlet of several large lakes.

The Upper Peninsula is drained by numerous small streams most of which have a general southerly direction. The most important are the following :

The Menominee, forming the principal natural boundary between Michigan and Wisconsin, empties into Green Bay.

The Escanaba and Manistique are the principal streams in the central and eastern part of the peninsula, and the Ontonagon and Sturgeon are the largest in the western portion.

SECTION IV—LAKES.

The " Great Lakes " of North America are remarkable, not only on account of their size, being the largest bodies of

fresh water in the world, but because of their location. They are situated on an elevated plateau and not, as might be supposed, in a great depression receiving the drainage of a large territory. The streams which flow into them are small and few in numbers.

All but one of these inland seas wash the shores of Michigan. Lake Superior, the largest, is 460 miles long and its greatest width is 160 miles. It is 599 feet above the sea level and 988 feet deep. Its area is 32,000 square miles. Lake Michigan, 360 miles long and 108 miles wide, and Lake Huron, 270 miles long and 160 miles wide, have the same elevation above the sea, viz: 581 feet. Lake Erie, only the west end of which touches the State, is 250 miles long, 80 miles wide and 565 feet above the level of the sea. Lake St. Clair, lying between Lakes Huron and Erie, has an area of 407 square miles.*

*THE GREAT LAKES.

	LENGTH. MILES.	WIDTH. MILES.	DEPTH. FEET.	COAST LINE IN MICH. MILES.	ELEVATION ABOVE SEA. FEET.	AREA. SQ. MILES.
Superior .	460	160	988	524	599.2	32,000
Michigan .	360	108	900	637	580 6	20,000
Huron ...	270	160	300	424	580.6	20,000
Erie	250	80	200	39	565	6,000
Ontario ..	180	65	500	...	262	6,000
	1.520	....	...	1,624	....	84,000

The smaller inland lakes of Michigan number over 5,000, In the Lower Peninsula the most important are Burt, Mullet Cheboygan, Pine, Bear, Torch Light, Elk Carp, Glen, Crystal, Hubbard, Higgins, Houghton and Muskegon lakes. With the exception of the one last named these are all in the upper third of the peninsula.

The largest lakes in the Upper Peninsula are Gogebic, Portage, Michigamme, Manistique, Hay and Mud lakes The last two form part of waters connecting Lakes Superior and Huron.

SECTION V—COAST LINE

Michigan has a coast line of 1,620 miles and "along the whole of this distance vessels of 2,000 tons may pass without losing sight of land." Compared with many of the States having a long sea coast, and with the countries of Europe, there are few bays, although many excellent harbors are found in the inland lakes which lie near the shore, and in the mouths of the large rivers, as at Holland, Grand Haven, Muskegon, Charlevoix, Cheboygan and elsewhere. At Sand Beach, in Huron county, the United States Government has provided, at a cost of nearly one million dollars, a safe and commodious harbor by constructing a stone breakwater, 8,000 feet long and inclosing 460 acres of water. This convenient refuge, together with the life-saving station, maintained by the Government, has proved a great benefit to lake commerce.

There are numerous peninsulas in the State of which Keweenaw is the most important on account of its great copper mines. [Name and locate the principal bays and peninsulas.]

SECTION VI—ISLANDS.

Included within the boundaries of the state are 179 islands and many islets, varying in size from one acre upwards, and having a total area of about 632 square miles.

Isle Royale, in Lake Superior, is the largest of these islands. It is 45 miles long and its greatest breadth is nine miles. Its area is 252 square miles. It lies about fifty miles from the south shore of Lake Superior and fifteen to twenty miles from the north shore. It has an exceedingly rugged shore and upon it are numerous rocky hills, some of them reaching an altitude of 700 feet above the lake. It contains rich deposits of mineral, particularly copper, and its surface is nearly covered with a dense forest. In 1875 it was organized as a county, though it is now said to be uninhabited.

In St. Mary's river are Sugar Island, fifteen by six and one-half miles, and Neebish Island, seven and a half by four

miles in size. Drummond Island, at the head of Lake Huron, is twenty miles long by thirteen wide. All these islands are inhabited by whites and Indians.

Off the south shore of the upper peninsula in Lake Huron is an archipelago of one hundred or more islands called the Cheneaux (popularly known as "The Snows"). Most of its members are mere islets, but Marquette island is four miles long by three and a half wide.

Mackinac Island, in the straits of the same name, contains 2,221 acres, of which 821 acres have been devoted by the General Government to a National Park, and 103 acres are occupied by the old fort. "A small garrison is maintained here, and this, with the scenery, the varied character of its structure, reaching upon the loftiest part of its plateau to 300 feet in height, its natural curiosities, and its historic celebrity, combine to attract to the island great numbers of visitors and summer residents."

Bois Blanc Island, at the entrance of Lake Huron to the Straits of Mackinac, is ten and a quarter miles long by six in width. It is becoming a favorite summer resort.

The islands which lie west and southwest of the Straits of Mackinac, in Lake Michigan, consisting of the Beaver, Fox, and Manitou groups, constitute a county (Manitou county) by themselves. As a county it is about 80 miles long by 30 miles wide, but its land surface comprises only 180 square miles. The entire county had 1,334 inhabitants in 1880, and 1,198 in 1884.

SECTION VII—CLIMATE.

It is claimed that the climate of Michigan, both in summer and winter, is better adapted to the interests of agriculture and horticulture, and probably also to the comfort and health of its citizens, than the climate of any other northwestern state.

The mean annual temperature for the state as determined by the Michigan Weather Service from thirteen years' obser-

vations, is 46.1° F., or about the same as that of Berlin. During the summer months the mean temperature for the state is 68.5°, or nearly the same as that of Vienna. During the winter months the mean is about the same as that of Stockholm, 23.8°.

In the Upper Peninsula the winters are somewhat colder and the summers are from four to six weeks shorter than in the Lower Peninsula.

The Great Lakes by which the State is surrounded exert a marked influence upon the climate. The severe winds are commonly from the west and northwest, but in sweeping across the open waters of Lake Michigan they are so far softened as to make the climate much milder than that found in the same latitude on the western side of the lake. The winter mean of Chicago, for example is 24.5° F., while that of New Buffalo is 28°. Milwaukee has a winter mean of 22° F., while that of Grand Haven is 26°. When intense cold prevails in other states of the Northwest, it is comparatively comfortable in many parts of Michigan. It cannot be doubted that the broad, deep water of Lake Michigan serves as a reservoir of heat received in summer, and perceptibly warms, not only the shore counties, but somewhat the whole Lower Peninsula.

This peculiarity of Michigan climate is especially favorable to the growth of fruits. Peaches are grown successfully along the Lake Michigan shore, and even figs thrive in the open air in latitude 42.5°

The average annual rain-fall for the State during 13 years' observation before 1889 was 35.8 inches This is quite evenly distributed throughout the year, although more than half of it falls in the months from May to October.

It is also quite equally distributed throughout the State. The Upper Peninsula, which receives the least amount, has an average annual fall of 34.81 inches.

The heaviest average annual rain-fall is in Berrien county

(43.44 inches), and the lowest is in Marquette county (31.63 inches).

Cyclones, blizzards, and other sudden and destructive meteorological disturbances are almost unknown in the State; and extreme drouths, or an excess or a deficiency in the temperature, never occur in all sections of the State in the same month.

In the record of the number of clear, fair or cloudy days as taken from the reports of the signal service the following stations are selected to show the average conditions as they exist in the State: Alpena has an average of 85 clear days, 144 fair days, and 136 cloudy days; Detroit, 87 clear, 148 fair, and 130 cloudy days; Escanaba, 81 clear, 155 fair, and 130 cloudy; Grand Haven, 92 clear, 136 fair, and 137 cloudy; Port Huron, 76 clear, 157 fair, and 132 cloudy; Marquette, 82 clear, 146 fair, and 137 cloudy days. Chicago, Ill., has an average of 108 clear, 149 fair, and 109 cloudy days.

TEMPERATURE AND PRECIPITATION NORMALS, DEDUCED FROM THIRTEEN YEARS OBRERVATIONS, 1876–1888; FOR EACH SECTION AND FOR STATE, (SEASONS AND ANNUAL.)

	UPPER PENINSULA.		NORTHERN SECTION.		CENTRAL SECTION.		SOUTHERN SECTION.		STATE.	
	Temperature. Degrees F.	Precipitation. Inches and hundredths.	Temperature. Degrees F.	Precipitation. Inches and hundredths.	Temperature. Degrees F.	Precipitation. Inches and hundredths.	Temperature. Degrees F.	Precipitation. Inches and hundredths.	Temperature. Degrees F.	Precipitation. Inches and hundredths.
SPRING { March, April, May, }	36.1	2 26	38.3	2.52	43.2	2.63	45.8	2.95	43.2	2.81
SUMMER { June, July, August, }	63.4	3.69	66.0	3.32	68.9	3.29	70.5	3.51	68.5	3.47
AUTUMN { Sept., Oct., Nov., }	44.5	3.51	46.6	3.38	49.2	3.18	50.2	3.04	48.9	3 15
WINTER { Dec., Jan , Feb., }	18.0	2.14	20.7	2.92	24.7	2.39	25.3	2.64	23.8	2.53
ANNUAL.....	40.5	34.81	42.9	36.43	46.5	34.47	48.0	36.40	46 1	35.85

SECTION VIII—CITIES.

At the date of the census of 1864 there were in Michigan 19 incorporated cities, having a total population of 130,158. In 1884 the number of incorporated cities had increased to 49, with a population of 509,277. In 1884 the population of the State was 1,853,658. It will thus be seen that more than one-fourth of the entire population of the State was, at that time, in the cities.

A special study of the cities and large towns of the State may be made by consulting gazetteers, the State directory, and such local publications as may be had. A few only of the largest cities are here described. Their population, according to the census of 1884, is as follows:

Detroit	132,956	Saginaw	13,760
Grand Rapids	41,898	Port Huron	10,388
Bay City	29,412	Battle Creek	10,051
East Saginaw	29,085	Lansing	9,774
Jackson	19,100	Adrian	9,319
Muskegon	17,825	Flint	9,017
Kalamazoo	13,909	Ann Arbor	7,912

LANSING, the Capital of the State, is near the centre of the southern half of the Lower Peninsula. It is situated on high ground on both sides of the Grand river, in the midst of a fertile territory. The city has many fine public buildings and private residences, and is rapidly increasing in trade, wealth and population. The capitol, constructed of iron and stone, at a cost of one and a half million of dollars, is one of the finest buildings of its kind in the United States.

The chief manufactures are steam engines, agricultural implements, wagons, sash, doors, blinds, and barrels. Four railways centre here, thus affording good commercial facilities. The Agricultural College, the Reform School for Boys, the Institution for the Blind, and the State Library are located here.

DETROIT, the metropolis of Michigan, is situated on the Detroit river, 18 miles from Lake Erie, and 7 miles from

Lake St. Clair. The river, forming the boundary line between the United States and Canada, is about half a mile wide at this point, and of great depth, thus forming the most perfect harbor on the great lakes.

With the annexed suburbs of Hamtramck and Springwells, Detroit stretches along the river front a distance of more than 6 miles, and extends back into the country nearly 3 miles, thus covering an area of about 20 square miles, the greater part of which is occupied by business blocks, public works and buildings and elegant and costly private residences. The river front is a line of mills, dry-docks, ship yards, foundries, grain-elevators, railway-depots, and warehouses of all descriptions.

The city is well laid out, the general plan being for the streets to follow the river and intersect at right angles; but there are five avenues which converge on the Campus Martius as a centre, thus forming a large open square, around which are grouped many fine public buildings. A boulevard, partly finished, is designed to form a crescent on the north side of the city, with its termini resting on the river above and below. Its length will be about nine miles, with a uniform width of 150 feet. It will connect with Belle Isle Park, which embraces the whole of Belle Isle. Extensive improvements on the island are being carried on, and when completed, this park will be one of the most attractive places of public resort to be found in the country. A bridge from the American side is in course of construction, the length of which will be 2,017 feet. Its cost will be about $300,000.

The manufacturing interests of Detroit are various and important. Railroad cars, stoves and pharmaceutical supplies are extensively produced. Other important industries are carried on in its ship-yards, saw-mills, flour-mills. brick-yards, tanneries, copper-smelting works, etc.

Nine railroads centre in the city, and steamers connect it with all the lake ports. It is a port of entry and a large foreign commerce is carried on with Canada: the exports in

1886 amounted to $4,283,310. In that year 346,718 loaded cars crossed the river, and over 5,000 vessels entered at this port. A government building, to cost $1,000,000 is soon to be erected.

GRAND RAPIDS, the second city in Michigan in population, wealth, and business importance, lies on both sides of Grand River, at the head of navigation, 32 miles by rail from Lake Michigan. The river at this point has a fall of 17 feet, affording an excellent water-power, which is used for manufacturing and milling purposes. The city is in the midst of a fine agricultural and horticultural region, and at the centre of the famous "Fruit Belt" of the State; it is, therefore, an important distributing point for these products. It is also a port of entry for foreign goods.

But it is chiefly as a manufacturing centre that Grand Rapids is known. Its manufacturing establishments, nearly 400 in number, produce goods which are sold in nearly every market in the world, and its furniture factories are the most extensive in the United States. Wooden-ware, pianos, carpet-sweepers, wagons, carriages, agricultural and mill machinery, leather, flour, brushes, barrels, boots and shoes, coffins and burial cases, are also manufactured in large quantities. From the extensive gypsum-quarries near the city, large quantities of land plaster and plaster of Paris are produced.

The State Soldier's Home is situated one mile north of the city, on the river bank, and the Masonic Home of the State is one mile east, near Reed's Lake, a favorite summer resort. Seven railroads enter the city, and furnish the best commercial facilities.

SAGINAW is on the Saginaw river, about 17 miles from its mouth. The river is navigable to this point for the largest lake vessels. This, with the facilities afforded by the railroads, give ample transportation for the large quantities of lumber, salt, and other products manufactured here. The city contains extensive saw, shingle and planing mills, sash

and door factories, barrel and salt works, and has foundries, machine, boiler and car-repair shops.

BAY CITY is situated on the Saginaw river, 4 miles from Saginaw Bay. It is largely engaged in the manufacture of lumber and salt, and in fisheries. As a ship-building point it is among the first on the Great Lakes, and it is also an important shipping port for immense quantities of lumber and other forest products. Important railroad connections add to the commercial advantages afforded by its location near the lake.

JACKSON is an important railroad centre and manufacturing town, in the south-central part of the state. It is in the midst of a fine farming region, and in its vicinity are found bituminous coal, limestone, fire-clay, and sandstone. Its manufactures comprise milling machinery, fire-brick, sewer-pipes, chemicals, wagons, agricultural implements, sash, doors and blinds, paper, flour, corsets and underwear.

The State Prison of the Lower Peninsula is located here, (see page 45) also large repair shops of the Michigan Central Railroad. This point is also a distributing centre for the state of the great reaper and mowing machine manufactories of the United States.

MUSKEGON is the largest and most important city on the east shore of Lake Michigan, and the greatest lumber manufacturing point in the world. The Muskegon river here empties into Muskegon lake, making one of the safest and most convenient harbors on the Great Lakes. Lines of steamers give the city daily communication with Milwaukee and Chicago, and furnish, with its railroads, excellent commercial facilities. In addition to the enormous amount of lumber, shingles, etc., manufactured here, furniture, railroad cars, boxes, and a large variety of wooden-ware are produced.

KALAMAZOO is situated on the river of the same name, 40 miles from Lake Michigan. The river affords ample power for the many industries of the place, and its railroad facilities are excellent. It is noted for the beauty of its broad and

finely shaded streets, its many and beautiful churches, and its handsome residences. Kalamazoo College, Michigan Female Seminary, and one of the three State asylums for the insane are situated here.

The city has become famous for the quantity and excellence of the celery it raises. The crop is shipped throughout the United States and its value amounts to hundreds of thousands of dollars annually. A large amount of manufacturing is also done. The largest carriage spring works in the country are located here, and fanning-mills and wind-mills are manufactured in large numbers.

PORT HURON is a port of entry, for here the Grand Trunk Railway of Canada enters the state, sending off branches to Detroit and Chicago. The city is situated at the foot of Lake Huron, and the head of the St. Clair river. Lumbering and the fisheries are among its more important industries. The manufacturing interests comprise extensive fibre works, machine-shops, ship-yards, saw-mills and agricultural implement works. Oil and natural gas have been found here in paying quantities.

BATTLE CREEK is situated at the confluence of the Kalamazoo and Battle Creek rivers, both of which furnish valuable water power. This is an important manufacturing centre, and produces extensively printing presses, threshing machines, portable engines, all kinds of wood-working machinery, flour, school furniture, sash, doors and blinds, boilers, leather, carriages and wagons, and all kinds of knit goods. The extensive repair shops of the Chicago and Grand Trunk Railway are located here. This city is also the headquarters of the Seventh-Day Adventist's denomination, which has here a college, sanitarium, hospital, and a publishing house, which issues a number of books, periodicals, etc., published in seven different languages, and circulating in all parts of the world. The tabernacle of this denomination has the largest auditorium of any religious edifice in the State.

ADRIAN, on the Raisin river, is in the midst of a fine farming country, and is an important shipping point for grain, dairy products, fruit, etc. Its manufactures comprise wheel-barrows, carriages, pumps, furniture, etc. Adrian College, a denominational school, is located here, and also the Industrial Home for girls.

FLINT, is located in the centre of Genesee county, on both banks of the Flint river. The site upon which the city stands was formerly known as the Grand Traverse of Flint river, and was a favorite camping and trading-ground of the Chippewa Indians. The streets are broad, well laid out, and liberally supplied with shade and ornamental trees. A large business is done by three mills in the line of sash, doors and blinds. There are several flouring mills foundries, machine shops, grain elevators, carriage and furniture manufactories, and a large woolen mill. Charcoal is also extensively produced. The Deaf and Dumb School is pleasantly located here.

ANN ARBOR, is beautifully situated on high ground on both sides of the Huron river, in the south-eastern part of the State. It is the county-seat of Washtenaw county, one of the most fertile agricultural counties in the country. It is the seat of the State University, which, with its nearly two thousand students, is the largest state institution of the kind in the Union. The large campus, University Hall, law and medical buildings, observatory, hospitals, laboratories, museums, library, and art gallery, form the chief attractions of the place.

PART II.

INDUSTRIES AND RESOURCES.

"Although agriculture is the chief producing interest of the State, and engages the attention of the largest share of its people, fertile farms and prolific orchards have not alone contributed to its prosperity. While a few states excel it in the volume of their crops, and in the aggregate of their industrial statistics, none can surpass it in the magnitude and diversity of its resources." Noted for its wheat, its wool, and its fruit, it is also first in the United States in its production of lumber, salt, copper and iron ore, and in the extent of its fresh water fisheries. The geographical position of the State with reference to the Great Lakes, affects not only its climate, as already shown, but furnishes peculiar commercial advantages.

SECTION I—AGRICULTURE.

Owing to its favorable climate, its varied and fertile soil, and its accessibility and nearness to the great markets of the world, Michigan is particularly adapted to agricultural pursuits; and it is estimated that at least half of its population is employed in this industry. It is said that in the whole of Michigan one can certainly find the exact character of soil he seeks, for every shade of variation seems to be represented. There are, indeed, limited areas covered with a light, rather sterile, sandy drift soil, and in other places a heavy but quite fertile clay soil occurs; but, in most instances, the drift soil is composed of a mixture of clay with sand and gravel, which combine all the properties requisite for the production of a rich vegetation.

The principal cereals produced are wheat, corn, oats and barley: but the great crop of Michigan is wheat. Its export brings more money into the State than all its other surplus

crops. The average yield per acre of this product is greater than that of any other state in the Union.

In its production of wool, the State ranked fourth in the Union in the census of 1880, and experienced dealers state that about three-quarters of the wool produced here rates as fine Spanish, and the remainder is of mixed grades. Sheep raising is a profitable pursuit, and horses, cattle and hogs are also extensively raised.

On account of its favorable climatic conditions, the State is peculiarly adapted to a wide range of fruits. Lake Michigan maintains a very even temperature throughout the year; and this, with the fact that most of the winds are westerly, explains the peculiar success in horticulture. This lake influence is not felt so largely in the interior as along the shore; but, in a large measure, the whole southern peninsula is modified in extremes of weather by this great equalizer. The fact that the western shore from St. Joseph northward to Grand Traverse is especially favored with immunity from frost, has given rise to the term, "Michigan Fruit Belt." In this strip of territory 200 miles in length, peaches are more successfully grown than in other portions of the state, although, in late years, large quantities have been shipped from several interior counties. The yield, in a good season, is about 500,000 bushels; and nearly 5,000,000 bushels of apples have been produced in one season.

Pears, plums, cherries, grapes, and various other small fruits are produced in great abundance and variety. Immense quantities of fruit are shipped daily from the ports along Lake Michigan, from St. Joseph to Traverse City, furnishing the great distributing market of Chicago with fresh fruit each morning during the entire fruit season. Special fruit trains are also run into Chicago during the season of shipment.

SECTION II—LUMBERING

The forest products are second only in importance to the fruits of the soil, and for many years lumbering has been the chief manufacturing interest of the State. The extent and value of the lumber product of Michigan has not been equalled

by that of any other state, and it is probable that for some years to come it will maintain its precedence in this respect.

The pine forests originally covered extensive areas in the northern two-thirds of the Lower Peninsula, besides large tracts in the Upper Peninsula; while the hard woods mainly occupied the southern third of the State. Of the 25,000,000 acres embraced in the Lower Peninsula, considerably more than one-half might properly have been classed as a pine region; for the product was found growing upon all the streams. Although several varieties of pine are found in the State, the white pine, so highly prized in commerce, predominates.

Much of the valuable timber has been cut and shipped to the different markets of the world. In 1886, the product of pine alone was 3,984,117,175 feet, and its estimated value was more than $60,000,000.

It is only one or two decades since active operations were commenced towards utilizing the unparalleled stores of choice hard woods found in the State, and the value of these products must continue to increase with every year. In time, the hard wood product will equal in yearly value the present pine lumber product.

The principal centres of lumber manufacturing are the Saginaw, Grand River and Muskegon valleys, the streams of which serve to carry the logs to the mills. Of late years, logging railroads have been built into the forests, thus enabling the mill to obtain a constant supply, and largely changing the character of the lumber industry.

SECTION III—MINING

Another important industry of the State, is mining, in which a large proportion of the population of the Upper Peninsula is engaged. As early as 1640, the French Jesuits who visited this country, discovered the rich mineral resources of the Upper Peninsula, and reported the fact to the head of their order in Paris.

COPPER.—The most important mineral products of the State are iron and copper. The richest copper mines ever

discovered are situated in the Mineral Range running into Keweenaw Point. These yield more than two-thirds of the entire product of the United States in the form of pure copper, which has only to be separated from the rock in which it is found to be ready for the market. It is mined by means of deep shafts and connecting galleries, and when brought to the surface it is separated from the rock by being first mashed under the ponderous hammers of the stamp mills, and then subjected to the fires of the smelting furnace.

Its quality is unequalled, and it commands a ready sale, and the highest price in the markets of the world. In many instances masses weighing hundreds of tons of pure native copper have been taken out. The celebrated mass of native copper which is now in the Patent Office at Washington, was discovered by Gen. Cass when he visited the country in 1822. It had been detached from its native hill, and had been transported several miles to the bank of the Ontonagon river, with the evident intention of taking it down that stream to the lake. By what race of men this mass was removed from its native bed, and carried to where Gen. Cass discovered it, will probably never be known; but there are traces of "ancient miners" throughout the whole mineral range of Lake Superior.

The Upper Peninsula contains 65 copper mines, 25 of which yielded in 1866, 80,858,752 pounds of copper, worth over $12,000,000. The largest mine, that at Calumet, has built up an industry which employs 2,000 men, and its total product of refined copper in 1882 was 50,770,719 pounds, or one-sixth of the estimated annual production of copper in the world. The copper is smelted at Portage Lake, Detroit, Cleveland and Pittsburgh. There are now between 25 and 30 mines in operation, employing about 7,000 men.

IRON.—The existence of iron ore in the Upper Peninsula was known to the Indians and white traders at an early day, but until 1845 it was not thought to be present in sufficient quantities to be of any practical importance. In 1880, Michi-

gan ranked as the second State in the Union in the quantity of iron ore produced, while in the value of its annual product it ranked first.

The mines are located in three separate districts in the Upper Peninsula.

1. The Marquette District includes the most thoroughly developed mines, and embraces the counties of Marquette and Baraga. Its chief mines are located west of Marquette in a range of hills, six miles wide by 100 miles in length, and extending to Keweenaw Bay. These are from 400 to 600 feet high, and they are nothing more nor less than solid masses of iron, partially covered by layers of earth and rock. This region contains the flourishing cities of Marquette, Negaunee and Ishpeming, the centers of much business activity and communities of enterprising and intelligent people, well provided with hotels, schools and churches.

2. The Menominee District is located in the northern and western towns of Menominee county. Active mining operations were not carried on here until 1877; but in 1882 there were 15 producing mines, which yielded over 1,000,000 tons of ore.

3. The Gogebic District is located between the lake of that name, and the Montreal River. In 1883 it was an undeveloped region, but since that time it has passed through the experience of a veritable western mining district. The Gogebic mining craze has had no parallel in the previous history of the Lake Superior region, but while the wonderful boom has collapsed, there has been much substantial progress. The villages of Bessemer, Ironwood and Hurley are as large and as well provided with the conveniences essential for business and personal comfort as are towns of equal population, after many more years of existence. There were, in 1888, 10 or 12 mines producing ore in paying quantities.

About 60 iron mines were working in 1887, and more than 6,000 men were employed in them. The yield for that year was nearly 4,000,000 tons of ore.

The Michigan ores are of extraordinary richness. The

greater part of the ore is shipped in its natural condition and reduced into iron by the furnaces of other States.

SALT.—Long before the settlement of Michigan by white men, the Indians supplied themselves with salt from the saline springs of the Saginaw valley; but it was not until 1860 that brine was obtained in paying quantities. From that time the development of this industry was so rapid that in five years its product equaled that of the Onondaga Salt Springs, near Syracuse, N. Y., in the forty-second year of the existence of their works.

The chief center of the salt manufacture is in the Saginaw valley, where three-fourths of the yield of the entire State is produced. The fortunate location of the wells upon the shores of navigable waters has given this industry the advantage of cheap transportation and easy access to markets.

Still more important is the economy with which the salt blocks are worked. In connection with saw-mills their operation involves a large saving of expense. Power is furnished by the same boilers, and the evaporation of the brine is forced during the day by the exhaust steam from the engines, and during the night by live steam generated in the boilers by burning refuse slabs and sawdust. The barrels are made from staves cut from rejected lumber and slabs.

The brine is of superior strength, and careful inspection by State authority, through a series of years, has, as a rule, kept the salt of unsurpassed chemical purity.

The salt is obtained by evaporation, as stated above. The average depth of the wells is about 900 feet; but there are productive wells from 1,000 to 2,000 feet in depth.

The salt producing area is about 800 square miles in extent, and it is safe to presume that the supply is inexhaustible.

In 1887, there were 285 wells pumped, and the amount of salt produced, as reported by the State Salt Inspector, was 3,944,309 barrels. The average price per barrel was 68 cents, making the total value of the product $2,682,130.12.

GYPSUM.—Immense deposits of a very superior quality of gypsum have been found at Grand Rapids and also near Alabaster, Iosco county, on the shores of Lake Huron.

The beds at Grand Rapids were discovered about 40 years ago; but it was not until 1856 that any considerable amount of plaster was produced.

Here the deposit, which is about 13 feet in thickness, crops out at the surface, and it extends over an area of 10 to 12 square miles.

The rock is easily quarried, and when taken from the mine it is usually piled in large blocks and allowed to remain several months exposed to the atmosphere, in order that the moisture which it contains may be in a measure evaporated.

When taken to the mill, the large lumps are broken with heavy hammers and the commodity is then passed through two heavy run of stone which crush it to powder. This is used as a land fertilizer or converted into plaster of Paris ("stucco").

In 1887, there were 28,794 tons of land plaster and 170,145 barrels of stucco produced.

COAL.—It is estimated by geologists that one-fifth of the lower peninsula of Michigan is underlaid by coal-bearing deposits; but it has not yet been found in large quantities, and it is not sufficiently exposed to make exploration easy or cheap. The deposits are thin, exceeding nowhere 3 to 4 feet in thickness, generally much less. The mines are so low and wet that men do not like to work in them.

In its natural state, the coal is too highly bituminous, or not pure enough, to make its use possible for smelting, blacksmithing, or the manufacture of gas; but it is said to be excellent in making steam, and is liked for locomotive boilers.

Jackson and Corunna are the only mining points of any importance, although a new mine has been opened at Grand Ledge, which may prove to be profitable. The entire product of coal in the State for 1887 was 36,544 tons.

STONE, SLATE AND EARTHS.—Michigan is rich in *Sandstones* and *Limestones* of commercial importance. Building stone of excellent quality has been found at many points in the State, and quarries have been opened in Calhoun, Eaton, Ingham, Ionia, Jackson, Marquette and Monroe counties. The Marquette brown stone is of particularly fine texture, and capable of receiving a high finish; its supply is practically inexhaustible.

The *Grindstones* of the Huron county quarries have no superior in the northwest, and grindstones of good quality are found elsewhere in the State.

The *Slates* of the Huron Bay District, in Baraga county, are of excellent quality. These quarries can be developed to an unlimited extent.

The iron district produces a *Quartz Rock* which is supplanting the foreign quartz, long imported for the lining of Bessemer steel converters, and similar purposes.

Clays and *Sands* of commercial value are found in abundance in various parts of the state.

Brick and *Tile* yards are numerous, and successful potteries are in operation at different points.

At Raisinville, Monroe county, is found a superior quality of *Glass Sand*, suitable for use in the manufacture of the finer grades of glass. *Lime Kilns* are common throughout the State. Valuable *Marbles* are amoung its rocks, and vast quantities of *Peat* exist, and must ultimately become valuable for fuel.

GOLD AND SILVER.—Gold bearing quartz has been found at various points in the Upper Peninsula, and a number of gold mining companies have been lately organized. The Ropes mine took out about $100,000 in 1889, and $11,000 in the month of February, 1890, where only $3.18 worth of gold to each ton of rock was found. Some quartz obtained on the land of the Michigan Gold Mine was estimated to assay not less than $50,000 to the ton.

Native silver has been found in small quantities, but its

systematic mining has never been attended in this State with profitable results.

SECTION IV—MANUFACTURING.

The manufacturing interests of Michigan are numerous and extensive, as might be expected from a State so rich in natural resources. The leading products are agricultural implements , railroad cars, furniture, stoves, wooden-ware, wagons and carriages, paper, barrels, chemicals and matches. The annual product of its flouring mills, foundries, furnaces and rolling mills, tanneries, shingle and saw mills, planing mills, sash, door and blind factories, brick and tile works, breweries, boot and shoe factories. and clothing establishments, must in each case be estimated by millions.

The State census for 1884 showed 136 different varieties of articles, manufactured by 8,302 establishments.

SECTION V—FISHERIES.

Owing to the vast extent of lake coast, Michigan has the most productive fresh-water fisheries in the United States. The business is carried on at all the important towns on the shores of the great lakes. The number of fisheries in the State in 1884, was 316; capital invested, $702,365; average number of hands employed, 1,338. The use of steam and sail vessels, together with the improved apparatus for taking fish, has greatly developed fishing as a commercial industry, so that large numbers of men are employed, and a large amount of capital is invested.

Whitefish is the most important fish commercially; other varieties are lake trout, sturgeon, bass, pickerel, herring, perch, eels and pike. Brook trout, grayling and black bass are the principal game fish.

The supervision of the fishing interests of the State is entrusted to a Board of Fish Commissioners, and the laws for the protection and preservation of fish and fisheries are rigidly enforced. The State maintains three hatcheries for the artificial propagation and cultivation of fish, and extensive deposits

of eggs and small fish are made yearly in the great lakes and inland waters, with a view to replenishing the supply of food fishes.

Up to 1881, the commissioners had planted in the lakes and rivers about 80,000,000 young whitefish, 1,000,000 silver eels, 1,000,000 lake trout, besides smaller numbers of shad, grayling, pike and bass. Excellent results have followed this work, especially in the multiplication of white fish, salmon and eels.

During the winter season, large quantities, preserved by freezing, are taken to eastern markets, where they are readily sold at a high price.

SECTION VI—WILD ANIMALS.

The domestic animals in Michigan do not differ from those found in other states.

Among the wild animals found by the early pioneers were the elk, the moose, caribou, deer, bear, wolf, lynx, panther, catamount, wildcat, fox, raccoon, rabbit, mink, beaver, porcupine, badger, besides other small fur-bearing animals not mentioned here.

Of these the elk, moose, panther, catamount and beaver have probably become extinct, although a few individuals may yet remain in the dense woods of the Upper Peninsula.*

The wolverene (or wolverine), the animal which has given the State its nickname, is now extremely rare, if not utterly extinct.

The principal birds are the eagle, not yet extinct in the wilder parts of the State; the turkey-buzzard, now very rare; the wild turkey, woodcock, snipe, plover, duck, gull, pheasant, partridge, quail, prairie-chicken, pigeon, raven, hawk, owl, heron, crane, and other birds common to the Northern States.

The reptiles of the State are neither very numerous nor venomous. The rattlesnake lingers in some localities, and other serpents are found to some extent.

*"The last moose is believed to have been shot in 1869, on the Keweenaw Peninsula. His flesh was sold in the Houghton markets at 50 cents a pound."—*Ford.*

SECTION VII—COMMERCE.

The advantages possessed by the State in the means of transportation are very great, and a large carrying trade has been developed. Communication from lake ports is easy, and the competition thus developed with the railroads insures low freight rates to the Atlantic seaboard.

RAILROADS.—Six important lines of railroad cross the southern peninsula in a general east and west direction.

The Michigan Central extends from Buffalo to Chicago through Detroit, Ypsilanti, Ann Arbor, Jackson, Battle Creek, Kalamazoo and Niles. There are several important branches of this road; the Saginaw and Mackinaw division extends from Jackson to Mackinaw, through Lansing Saginaw, West Bay City and Cheboygan. A five mile ferriage at the Straits of Mackinaw connects it with the Duluth, South Shore and Atlantic of the Upper peninsula. The Grand River Valley division extends from Jackson to Grand Rapids, through Charlotte and Hastings.

The Lake Shore and Michigan Southern extends from Buffalo to Chicago, through Toledo, O., Adrian, Hillsdale and Coldwater. This road also owns numerous branches, one being from White Pigeon through Three Rivers, Kalamazoo and Allegan to Grand Rapids; another line runs from Hillsdale through Albion and Eaton Rapids to Lansing.

The Detroit, Lansing and Northern extends from Detroit to Howard City. Among the branches of this road are the Grand Rapids, Lansing and Saginaw, and the Grand Rapids, Lansing and Detroit.

The Chicago and Grand Trunk extends from Chicago to Port Huron, where it connects with the Canadian Grand Trunk for Toronto, Montreal, Quebec, and Portland, Me.

The Flint and Pere Marquette extends from Ludington to Monroe, through Baldwin, Reed City, Saginaw and Flint.

The Detroit, Grand Haven and Milwaukee extends from Detroit to Grand Haven, through Grand Rapids, and connects by steamer with Milwaukee and Chicago.

There are also a number of north and south roads, which transport quantities of grain, coal and lumber.

The Grand Rapids and Indiana extends from Mackinaw to Richmond, Ind., through Petoskey, Cadillac, Reed City, Big Rapids, Grand Rapids, Kalamazoo and Fort Wayne. Branches of this road run from Grand Rapids to Muskegon, and from Traverse City and Harbor Point to the main line.

The Chicago and West Michigan passes through the "fruit belt" of the western shore, from Pentwater to New Buffalo. It has also a parellel line from Traverse City through Baldwin, Newaygo and Grand Rapids, joining the other division at Holland.

The Mackinaw division of the Michigan Central, the Flint and Pere Marquette, and the Toledo, Ann Arbor and North Michigan, are also important north and south roads. Nearly all these Michigan railways have branches spreading over the Lower Peninsula, interlacing to form a complete network, so that the farming districts are well supplied, and nearly all the cities and towns have two or more railroads with their resulting competion.

In the Upper Peninsula the transportation facilities by means of railroads have greatly increased during the last few years. There are now two important lines running east and west through the peninsula. These are The Duluth, South Shore and Atlantic, extending from Sault Ste. Marie and Pt. St. Ignace, through Marquette and Ishpeming to Houghton; and The Minneapolis, Sault Ste. Marie and Atlantic, extending from Minneapolis through the State of Wisconsin to Sault Ste. Marie; it passes through Escanaba and Manistique.

The Chicago and Nothwestern connecting Ishpeming, Marquette, Negaunee and Menominee with Milwaukee and Chicago; and The Milwaukee and Northern, extending from Chicago through Iron Mountain to Champion, traverse the iron mining districts, and carry most of the ore to the ake ports.

The following table, compiled from Wood's Railway Guide, giving a list of the railroads of the State, with the length and termini of each, is intended for reference:

RAILROADS	MILES	CONNECTING.
Au Sable & Northwestern	37	Potts and Au Sable.
Cadillac & Northeastern	14	Cadillac and Lake City.
Chicago & Grand Trunk	335	Chicago and Port Huron.
Chicago, Kalamazoo & Saginaw	45	Kalamazoo and Woodbury.
Chicago & Northwestern and branches	544	Chicago and Ishpeming.
Chicago & West Michigan	153	Chicago and Grand Rapids.
Northern Division	103	Allegan and Pentwater.
Newaygo Division	148	Grand Rapids and Traverse City.
Big Rapids Division	55	Muskegon and Big Rapids.
Cincinnati, Jackson & Mackinaw	156	Allegan and Toledo.
Cincinnati, Saginaw & Mackinaw	59	Durand and Oa-at-ka Beach.
Cincinnati, Wabash & Michigan	200	Benton Harbor and Indianapolis.
Detroit, Bay City & Alpena	105	Detroit and Alpena.
Detroit, Grand Haven & Milwaukee	189	Detroit and Grand Haven.
Detroit, Lansing & Northern	353	Detroit and Mackinaw.
Grand Rapids, Lansing & Detroit	150	Detroit and Grand Rapids.
Saginaw Division and Branch	126	Saginaw and Grand Rapids.
Stanton Division	190	Ionia and Big Rapids. [and Duluth.
Duluth, S. Shore & Atlantic & Branches.	501	Pt. St. Ignace, Houghton, Sault Ste. Marie
Flint & Pere Marquette and Branches	373	Monroe, Ludington, Manistee et al.
Port Huron Division	91	Port Huron and East Saginaw.
Sand Beach Division	70	Port Huron and Sand Beach.
Almont Division	34	Port Huron and Almont.
Frankfort & Southeastern	25	Copemish and Frankfort.
Grand Rapids & Indiana and Branches	483	Mackinaw and Richmond, Indiana.
Muskegon Division	40	Grand Rapids and Muskegon.
Traverse City Division	26	Traverse City and Walton.
Grand Trunk, Detroit Division	59	Detroit and Ft. Gratiot.
Mich. Air Line Division	106	Jackson and Lenox.
Lake Shore & Michigan Southern	540	Chicago and Buffalo.
Detroit Division	73	Adrian and Detroit.
Jackson Division	46	Adrian and Jackson
Fort Wayne Division	100	Fort Wayne and Jackson.
Lansing Division	65	Lansing and Hillsdale.
Grand Rapids Division	95	Grand Rapids and White Pigeon.
Ypsilanti Division	61	Ypsilanti and Hillsdale.
Dundee Division	69	Adrian and Detroit.
Fayette Division	32	Adrian and Fayette.
Lowell & Hastings	15	Lowell and Freeport.
Manistee & Northeastern	45	Manistee and Interlocken.
Michigan Central	285	Detroit and Chicago.
Canada Division	251	Detroit and Buffalo.
Air Line Division	103	Jackson and Niles.
Bay City Division	108	Bay City and Detroit.
Saginaw Division	114	Bay City and Jackson.
Mackinaw Division	182	Bay City and Mackinaw.
Grand Rapids Division	94	Grand Rapids and Jackson.
North Midland Division	20	Bay City and Midland.
Detroit & Toledo Division	94	Detroit and Toledo.
South Haven Division	40	Kalamazoo and South Haven.
Milwaukee, Lake Shore & Western	462	Milwaukee and Duluth.
Milwaukee & Northern	371	Milwaukee, Ontonagon and Menominee.
Mineral Range	25	Houghton, Red Jacket and Lake Linden.
Minn., St. Paul & Sault Ste. Marie	494	Minneapolis and Sault Ste. Marie.
Pontiac, Oxford & Northern	100	Pontiac and Caseville.
Saginaw, Tuscola & Huron	67	East Saginaw and Bad Axe.
St. Joseph Valley	11	Berrien Springs and Buchanan.
St. Louis, Sturgis & Battle Creek	70	Battle Creek and Goshen.
Toledo, Ann Arbor & North Michigan	274	Toledo and Copemish.
Toledo, Saginaw & Muskegon	116	Owosso and Muskegon.
Toledo & South Haven	37	Lawton and South Haven.
Wabash	477	Detroit and St. Louis, Mo.

There are several logging railroads in the Lower Peninsula, constructed for the business of their owners, a few of which have been opened to the public.

In December, 1889, there were 6,759.55 miles of railroads in Michigan.

CANALS.—There are no interior canals in the Lower Peninsula. "In Macomb county there is a short work of this kind, which is now used only for its water power, and is all that represents a project of the early days of the State for connecting the Clinton and Kalamazoo rivers and thus uniting the waters of Lakes Michigan and St. Clair."

The Upper Peninsula has an important ship canal across Keweenaw Point, connecting Portage Lake and Lake Superior, thus enabling vessels to avoid a detour of 120 miles around the peninsula. It was built by a private corporation which still owns and controls it, collecting tolls at a low rate for its use.

Two first-class ship canals, situated on waters which form part of the State's boundary line, facilitate the navigation of the great lakes. They are located at the head of the St. Mary's river in the Upper Peninsula and at the mouth of the St. Clair river in Lake St. Clair. Both are the property of the general government, and their use is not subject to to tolls or charges of any kind.

The St. Mary's canal and lock was completed by the State in 1855. The greater part of it was cut through the solid rock around the rapids which have, within the space of three-quarters of a mile, a fall of 22 feet. It was 100 feet wide at the surface and was one mile in length. The lock was 370 feet long, 70 feet wide and had a lift of 12 feet. In 1881, a new lock was built by the United States Government and the canal was otherwise greatly enlarged and improved.

Lake Superior has thus been opened to the navigators of the lower lakes, and vessels of a capacity of over 2,000 tons and drawing sixteen feet of water, can now sail from Duluth

direct to Buffalo. The annual report of the superintendent of this canal for 1888 shows that it was open 232 days in the year and that 8,832 vessels having 6,932,203 freight tons passed through. In addition to the lumber that passed through the canal, 35,000,000 feet of logs were rafted over the rapids. The cost of running the canal during the year was $30,625.45.

The St. Clair canal was completed in 1871, at a cost of $653,550. It was built by the Government for the relief of navigators, whose vessels were frequently grounded on "The Flats" of Lake St. Clair. It is 8,200 feet long, 200 feet wide and 16 feet deep. "A light-house is maintained at each end, and a large number of artificial islets have been made, for sites of club-houses and summer resorts and residences."

PART III.

EDUCATION AND THE STATE INSTITUTIONS.

SECTION I—THE PUBLIC SCHOOL SYSTEM.

The educational system of Michigan is laid upon the broad foundation of the common schools and it is crowned and completed by the University. Between these are other institutions, each of which has its appropriate place in the system.

The public schools are classified as graded and ungraded, the former are found in the cities and villages, and the latter in the country districts where the population is scattered. The graded schools are divided into primary, grammar and high schools, each of these divisions retaining the scholar ordinarily four years. At the end of the course the student is ready for the University, to which, under certain restrictions, he is admitted on diploma from the high schools.

In 1889, the number of graded districts was 503, and the number of ungraded districts, 6,642. All districts having less than 30 children must maintain school at least three months in the year; if there are more than thirty children, the school must be open five months; if more than eight hundred children, nine months. A school census of all children between 5 and 20 years of age is taken annually in each district. In 1889, the number was 640,069, of whom 423,604 were enrolled in the schools. Attendance in the public, or in private schools, for at least four months in each school year is compulsory upon all children between the ages of 8 and 14 years.

The immediate administration of the schools is entrusted to the districts themselves and to the school officers elected

annually by the people; but the State exercises a general supervision over the system through its Superintendent of Public Instruction.

The revenue for the support of the schools is derived from three principal sources, viz:

1. The Primary School Fund. This is the interest of the permanent fund in the hands of the State, arising from the sale of primary school lands. It originated as follows-When the public lands of the United States were sold to private purchasers, the Government promised to set apart one section of land in each township for educational purposes.* The money derived from the sales of these sections in Michigan was given to the State, for the use of the public schools. This is called "the primary school fund."

Only the interest of this fund can be used, and this is apportioned each year among the school districts, each district receiving a sum proportioned to the number of school children in the district. The total income is annually over $600,000. (In 1889 it was $827,773.44).

2. The One-Mill Tax. On all the taxable property of the State, there is levied an annual tax of one-mill on the dollar for school purposes. It amounts on an average to about one dollar per child. In 1889 it was $672,465.09.

3. Direct School Tax. The Board of Education, or School Trustees, make an estimate of the money necessary to meet the expenses of the schools, and submit this estimate to the people or their representatives. If this is approved, the Supervisors assess the tax on the taxable property according to valuation. The school tax is about one-third of the whole amount of the direct taxes for all purposes. The sum raised in this way in 1889 was $3,395 030.29.

School Libraries. Every township is required to maintain a township library, or a school library in each district.

* All the public lands of the United States are laid out in townships, each of which is six miles square; and each township is subdivided into thirty-six *sections*, each containing a square mile.

All money received from fines for criminal cases, is applied to the purchase of books. and a part of the one-mill tax may also be appropriated for this purpose.

A total amount of more than $6,000,000 was thus raised in 1889 for school purposes, more than one-half of which was used to pay the salaries of over 16,000 teachers.

SECTION II—EDUCATIONAL INSTITUTIONS.

In addition to the Public Schools, already described, the State maintains four higher institutions of learning, each in its sphere designed to provide the means of securing the kind and amount of special training desired.

1. The University. It was established at Ann Arbor in 1837, and hence has had an existence of 53 years. Within that time its corps of three instructors has grown to 82, and its list of students, which in its first catalogue contained but 53 names has reached a total of more than 2,000.

The governing body of the institution is a Board of Regents, elected by popular vote for terms of eight years, as provided in the constitution of the State.

The University has a permanent endowment fund derived from the sale of lands dedicated to that purpose. It also receives for its support a twentieth of a mill tax on all the taxable property of the State, and an annual State appropriation. Students who reside in the State pay an entrance fee of $10, while for non-residents it is $25. The annual fees for incidental expenses vary from $20 to $50.

The University comprises the following departments:

1. The Department of Literature, Science and the Arts.
2. The Department of Medicine and Surgery.
3. The Department of Law.
4. The School of Pharmacy.
5. The Homœopathic Medical College.
6. The College of Dental Surgery.

Each of these departments has its faculty of instruction, which is charged with its special management. The regular

term in college covers four years; in the medical and dental schools three years, and in the law school two years. For 16 years women have been admitted on equal terms with men.

The University possesses a fine astronomical observatory containing a large telescope and other valuable apparatus; also valuable libraries, containing, in the aggregate, nearly 75,000 volumes and pamphlets. The laboratories are fully equipped, and the museums are supplied with numerous and varied collections. Two valuable gifts have lately been made, viz: The Lewis Art Gallery now in Coldwater, and the Rogers collection of Arts.

In the hospitals, patients are received and treated without charge, except for board and medicines, by the best of specialists, who are numbered among the medical faculty. This affords a good clinical school for the medical students.

2. The Normal School, at Ypsilanti, is a training and practice school designed to fit teachers for work in the common schools. Students of either sex who can pass an examination in the common English branches, and who will declare in writing that they propose to devote themselves to the business of teaching, are admitted. A tuition fee of $10 per year is required, and each member of the State Legislature is entitled to appoint two students who are entered free of charge.

3. The Agricultural College, at Lansing, was the first State institution of the kind founded in the United States. It was located in 1857 on a farm of 676 acres, three miles from the capitol building. The leading object of this institution is to teach such branches as are related to agriculture.

The farm is well stocked and provided with fine buildings, barns, orchards, fruit and vegetable gardens, an aviary, extensive lawns, and a large greenhouse. A large portion of it is under systematic cultivation, and the students are required to work on the farm or garden three hours daily, for which they are paid according to the work done.

Tuition is free, and students who choose to apply themselves, can support themselves by the work done on the farm, and obtain a thorough English education and training in all the practical sciences. Among the practical subjects taught are surveying, leveling and laying out of grounds, building, stock breeding, mechanics as applied to implements, agricultural chemistry, horticulture, etc.

4. THE MINING SCHOOL, located at Houghton, was opened to students in September, 1886.

This school was organized to enable students to obtain a full knowledge of the science, art, and practice of mining, and the application of machinery thereto.

Provision has been made for obtaining a complete collection of the minerals of the Upper Peninsula, and for collecting and preserving information in regard to its mineral resources.

Its location in the Upper Peninsula enables the student to see, in actual operation, some of the most successful and vast mining operations conducted anywhere, thus placing him in an atmosphere in which all his surroundings and associations are in conformity with his present and future work.

Besides these institutions, there are other schools and colleges supported by religious denominations, and by private enterprise. Among these may be mentioned the following:

NAME OF INSTITUTION.	LOCATION.	DENOMINATION.
Adrian College	Adrian	Methodist Protestant.
Albion College	Albion	Methodist Episcopal.
Alma College	Alma	Presbyterian.
Battle Creek College	Battle Creek	Seventh Day Adventists.
Hillsdale College	Hillsdale	Free Will Baptists.
Hope College	Holland	Dutch Reformed.
Kalamazoo College	Kalamazoo	Baptist.
Olivet College	Olivet	Congregational.
Michigan Female Seminary	Kalamazoo	Presbyterian.
Detroit College	Detroit	Catholic.
Michigan Military Academy	Orchard Lake	Non-sectarian.

SECTION III—CHARITABLE INSTITUTIONS.

In addition to the educational institutions described in Section II, there are others which have been established and maintained by the State. These will now be described. The first three may properly be called charitable-educational institutions.

1. The School for the Deaf, located at Flint, is the oldest of the charitable institutions. It was opened in 1854 and was originally intended as a school for deaf mutes and for the blind; the latter were received in the institution until the opening of the School for the Blind, at Lansing, in 1879. The deaf mutes are taught all the common English branches, in the sign language. Instruction is also given in articulation, and many of the pupils learn to talk intelligibly by watching the position of the lips and vocal organs of the teachers and by imitating them. The boys are taught farming, cabinet-making, shoe-making and printing, and the girls, sewing, knitting, printing and housework.

2. The School for the Blind, at Lansing, is similar in its plan to that for deaf mutes. The instruction in reading and writing is given by means of raised and also by perforated letters. The latter system is much liked by the blind students, as in this way they can read not only books prepared for their use, but their own writing and that of their class mates.

Basket-making, broom-making, piano tuning, and sewing, knitting and bead-work are taught in the School for the Blind.

No charge is made in either the School for the Blind or for Deaf Mutes, to Michigan pupils, and indigent pupils are provided with suitable clothing to the amount of $40.00 per year.

3. The State Public School, the first state institution of the kind founded in the world, was located on a farm near Coldwater, in 1874. It is intended for the support, instruction and manual training of the dependent children of the State.

Children from three to twelve years of age, who are free from contagious diseases, are received, comfortably clothed, fed and taught; and when they are old enough, they are trained to work on the farm or in the dining-room, kitchen, bakery, laundry or engine-room.

The children are divided into families, each occupying a cottage, and being under the care of a lady cottage-manager. Thus they have the surroundings and influences of a well-regulated home. A good school is maintained, which each child is obliged to attend.

As soon as possible, suitable homes are found for the children in private families. When this is done, a contract is required that they will be properly treated as members of the family, and educated. If this contract is violated, or the children prove unmanageable, they are returned to the School. Homes are found in a similar way for boys and girls from the two Reform Schools, who are without suitable homes, and who show evidence of reformation.

In this way, abandoned and neglected children, instead of growing up in idleness and crime, are well cared for, and placed in the way of becoming useful citizens.

4. The Soldier's Home is located at Grand Rapids, and was founded in 1885, to furnish an asylum for all "honorably discharged Union Soldiers and Sailors of the Civil War, who would otherwise be dependent upon charity." It is, of course, restricted to residents of the State.

5. The Asylums for the Insane are three in number, located, respectively, at Kalamazoo, Pontiac and Traverse City. The cost of maintaining indigent patients is charged to the counties from which they are sent, for the first two years, after which they become a charge of the State. Patients who are able to pay are charged for care at a rate determined by the trustees of the three asylums, jointly:

6. There is also an Asylum for Insane Criminals connected with the House of Correction at Ionia.

SECTION IV—REFORMATORY INSTITUTIONS.

1. The Reform School for Boys, at Lansing, is established for the purpose of reclaiming children who have been subject to evil influences, and have entered upon a life of vice and crime. Boys between the ages of ten and sixteen who have been convicted of offenses not punishable by law with imprisonment for life, may be sent to this school, and kept there until they are seventeen years of age. The Board of Control has the power to liberate any inmate who has been so far reformed as to justify his discharge, or to bind any inmate for a number of years to suitable persons. It may also give boys leave of absence for a limited period or during good behavior.

The aim of the school is to develop industrial and moral habits; to educate and throw around young offenders the influences of home life; and to inculcate the habit of cheerful and prompt obedience to lawful authority.

All are obliged to attend school about five hours each day, and they are also employed during a portion of each day in some of the following industrial occupations: Chair caning, tailoring, baking, shoemaking, farming and printing.

2. The Industrial Home for Girls, at Adrian, has the same general plan and aim as the Reform School. It is designed for the reformation of wayward girls between the ages of ten and seventeen; and they may be retained until they are twenty-one years of age, unless they earn an earlier discharge by good behavior.

The girls are placed in cottages, the inmates of each cottage forming a family and being in charge of a cottage-manager. They are taught all kinds of domestic work, sewing, gardening, and care of the grounds, besides having a half of each day in the school room. During the last two years the experiment of placing girls in approved families has been tried with marked success.

SECTION V.—PENAL INSTITUTIONS.

Three penal institutions are supported by the State. The House of Correction at Ionia, for prisoners convicted of

minor offences; the STATE PRISON at Jackson; and the HOUSE OF CORRECTION and Branch of the State Prison at Marquette, for the Upper Peninsula. The industries of these institutions are managed under the contract system, the labor being let to outside manufacturing establishments.

Persons convicted of crimes not punishable by imprisonment at Jackson or Ionia, are sent to the DETROIT HOUSE OF CORRECTION, a first-class penitentiary belonging to the city of Detroit. Contracts are made by this institution for the keeping of not only Michigan and United States prisoners, but of those from newer states and territories without suitable prisons. The term of confinement here varies from sixty days to life sentences. The Detroit House of Correction is not a State institution, but is under State inspection. It is the only prison for women in the State.

PART IV.

CIVIL GOVERNMENT.

SECTION I—STATE GOVERNMENT.

DEPARTMENTS OF GOVERNMENT.—The Government of the State is divided into three departments: The executive, the legislative and the judicial. The legislative department makes the laws, the judicial interprets them, and the executive carries them into effect.

THE EXECUTIVE DEPARTMENT.

At the general election which occurs every two years, in November, certain executive officers are elected. They are called State officers because their duties pertain to the whole State. They are the following:

Governor, Lieutenant-Governor, Secretary of State, Treasurer, Auditor General, Commissioner of the Land Office, Attorney General, Superintendent of Public Instruction.

GOVERNOR.—The Governor is the chief executive officer of the State. It is his duty to look after the general interests of the State, and to see that the laws are faithfully executed. He is required—

1. To give the legislature information of the condition of the State, call their attention to any subjects upon which legislation is needed, and recommend such measures as he may deem expedient.

2. To convene the legislature when matters arise which require their immediate attention.

3. To preserve peace and good order within the State, and suppress riots and mobs. To this end he is commander-in-chief of all the military forces of the State.

4. To fill vacancies in State offices, and to appoint certain State Boards.

The Governor has power to grant pardons, or to lessen the severity of a sentence.

To be eligible to the office of Governor, a man must have been a Citizen of the United States at least five years, and a resident of the State for two years next before the election. He must be not less than thirty years of age.

LIEUTENANT-GOVERNOR.—The Lieutenant Governor is the President of the Senate. If a vacancy in the office of Governor exists the Lieutenant Governor performs the duties of the chief executive. His qualifications are the same as those of Governor.

SECRETARY OF STATE.— This officer preserves certain books and papers belonging to the State, and the records of the official acts and proceedings of the legislative and executive departments. He countersigns all commissions and proclamations issued by the Governor, attends to the publication and distribution of the laws of the State, receives reports from corporations organized under the State law, and supervises the census enumeration every ten years.

TREASURER.—The Treasurer receives and has charge of all money belonging to the State. He is required to make an annual report to the legislature of all money received and paid out by him during the year and the balance remaining in the treasury.

AUDITOR GENERAL.—The Auditor General is required to examine the Treasurer's accounts monthly, and report to the legislature. No money can be paid out of the treasury except on the warrant of the Auditor General, and all receipts for money paid to the Treasurer must be countersigned by him. He superintends the collection of money due to the State, and apportions the State tax among the counties; he issues warrants to the State Treasurer for all claims paid by the State.

COMMISSIONER OF THE LAND OFFICE.—This officer has charge of all lands belonging to the State, or in which the

State has an interest, and he is authorized to sell or dispose of them in such manner as may be prescribed by law.

The Attorney General.—The Attorney General is required to give his opinion upon all questions of law submitted to him by any State officer or by the legislature. He must also give advice to Prosecuting Attorneys, in all matters pertaining to the duties of their office, when so requested by them. He must prosecute and defend all actions in the Supreme Court, in which the State is interested, and appear for the people of the State in all suits, when requested by the Governor or by the Legislature.

Superintendent of Public Instruction.—This officer has general supervision of the public schools, and State educational institutions; collects the school statistics of the State; apportions the primary school interest fund to the counties; organizes teachers' institutes and appoints instructors for them; receives reports from superintendents of schools and from all State and chartered educational institutions, makes reports to the Gorvernor, and compiles and publishes the School laws; visits all State educational institutions and meets with the governing boards of such at least once in each year; appoints visitors to the State University, and all chartered educational institutions, and prepares all questions used in the examination of teachers throughout the State.

Boards and Commissioners.—Certain boards and commissioners are selected to assist the Governor in the performance of his duties. They have the general supervision and control of various State institutions, and they perform duties which concern the welfare of the whole state. These boards and commissioners are appointed by the Governor, or are elected by the people, or they are State officers, who, by virtue of their office, serve on certain boards.

The following are some of the more important State Boards: Board of Auditors, Board of Canvassers, Board of Equalization, Board of Geological Survey, Board of Health,

Board of Corrections and Charities, Board of Pharmacy, Board of Regents, State Board of Agriculture and State Board of Education.

THE LEGISLATIVE DEPARTMENT.

THE LEGISLATURE.—The State Legislature is composed of two houses:

1. THE SENATE.
2. THE HOUSE OF REPRESENTATIVES.

The Senate consists of thirty-two members and the House of Representatives of one hundred. The Legislature enacts laws, devises means for raising money to meet the public expenses of the State, and perform such other duties as the Constitution and laws of the State require. The members of the Legislature are elected at the same time that State and County officers are, and for a term of two years.

The State is divided into thirty-two senatorial districts, and each district elects one Senator. The representatives are elected by the people, one in each of the one hundred representative districts in the State.

The Legislature meets every two years, at Lansing, on the first Wednesday in January following the election of members. The room in which the Senate meets is called the Senate Chamber, and the one in which the Representatives meet is called Representative Hall. Each Senator and Representative takes an oath to support the Constitution of the United States, and of Michigan, and to faithfully discharge the duties of his office to the best of his ability.

PRESIDING OFFICERS. The presiding officer of the Senate is the Lieutenant-Governor; he is called the President of the Senate. The House of Representatives chooses one of its members to preside over it; he is called the Speaker. These officers preserve order and see that the business before their respective houses is properly attended to.

MESSAGE.—When the two houses are ready for business the Governor presents to them his message. This is a written statement of the condition of State affairs, with recommendations for such action as he deems necessary or desirable.

STANDING COMMITTEES.—In each house, soon after its organization, about forty-two committees are appointed by the presiding officers. "Standing committee" is another name for permanent committee. In these committees a great part of the business of the Legislature is transacted. When a subject is presented to either house, it is first referred to some standing committee, and after it has been properly considered, it is reported back to the house in one of three ways:

1. Without recommendation.
2. With amendments.
3. With the recommendation that it be passed.

HOW A LAW IS MADE.—Subjects may be presented to the Legislature in three ways:

1. By the Governor.
2. By petitions from the people.
3. By bills presented by members of the Legislature.

A bill is a draft of a proposed law. When a bill is presented to one of the houses, it is first referred to some committee, who examines and returns it either without recommendation, or with amendments, or with the recommendation that it be passed. After the bill is reported back to the house by the committee, it must be read three times by the clerk to the house before the final vote. After a bill has passed one house it is sent to the other and voted upon. If it passes that house it is sent to the Governor to receive his signature, and if he signs it the bill becomes a law; if he does not approve of the bill, he refuses to sign it, and returns it with his objections to the house in which it originated. This action of the Governor is called a *veto*. Notwithstanding the veto, if two-thirds of the members of each house shall afterwards vote for the bill, it becomes a law without his consent. If the Governor should not return the bill within ten days, not including Sundays, it becomes a law without his signature.

UNITED STATES SENATORS.—Besides making laws, the legislature elects United States Senators. Each State is entitled to two Senators in Congress, who hold their office six

years. The present Senators from Michigan are Senators McMillan of Detroit, and Stockbridge of Kalamazoo.

THE JUDICIAL DEPARTMENT.

The Judicial department explains and applies the laws, and administers justice according to the laws. This department consists of the various courts which rise in importance and power by regular steps from the lowest to the highest.

COURTS.—The Judicial power is vested in the following courts:

A Supreme Court. Circuit Courts, Probate Courts, Municipal Courts, Justices' Courts.

SUPREME COURT.—The Supreme Court is the highest judicial court in the State. Its chief duty is to decide whether the cases appealed have been properly tried or not. The Supreme Court consists of one Chief Justice and four Associate Judges, who are elected for a term of ten years, one being elected every two years. The Judge whose term of office first expires, or, in other words, who has served as Judge eight years, becomes Chief Justice. This Court meets at Lansing, and four terms are held annually.

CIRCUIT COURTS.—The State is divided into twenty-eight districts, or judicial circuits, in each of which a Circuit Judge is elected for a term of six years. A judicial circuit embraces usually two or more counties, but in thickly populated districts may contain but one. These Courts have jurisdiction in grave offenses, and are usually held four times a year in each county. If either party in a suit be dissatisfied with a decision of the Circuit Court, the case may be appealed to the next higher Court, which is the Supreme Court.

PROBATE COURT.—There is a Probate Court in each county, presided over by a Probate Judge. This Court has charge of matters relating to the estates of deceased persons; it has power to decide whether a document supposed to be a deceased person's will is legal or not, to appoint guardians for

minors and to exercise general control over their estates. It may also appoint persons to settle the estate of any one who dies without making a will. Cases may be appealed from this Court to the Circuit Court. The Probate Judge is elected for a term of four years.

Municipal Courts.—In large cities like Detroit and Grand Rapids, where there is too much business for the ordinary Courts, other Courts are established by special act of the Legislature. These are called Municipal Courts. The Superior Court and the Police Court are of this kind; the Superior Court being of the same grade as the Circuit Court, and the Police Court as the Justice Court, although Police Courts have no jurisdiction in civil cases.

Justice Courts.—The lowest Courts are the Justice Courts, held in every township and city by Justices of the Peace. These have jurisdiction over cases of comparatively small importance. After a case has been tried in a Justice Court, it may be appealed to the next higher Court for a new trial. This is done when one of the parties in a suit is dissatisfied with the decision of a Justice Court. Justices of the Peace are elected for a term of four years. Usually four are elected in each township and city.

Juries.—A body of men selected according to law, to inquire into and try any matter of fact and to declare the truth of it, is a jury. There are two kinds of juries:

1. Grand Juries.
2. Petit Juries.

Grand Jury.—This is a jury of not less than sixteen, and generally not more than twenty-three well-informed men, who are summoned to decide whether there is sufficient evidence against a person accused of a crime to warrant his prosecution. At least twelve of them must decide that there is sufficient ground for a trial; and they present a written accusation, called an indictment, to the court. The accused is then held for trial.

Another method of procedure, and the one most common in this State, is for the complaint to be made before a Justice of the Peace, who holds an examination of the accused, and if probably guilty he is bound over to the Circuit Court for trial.

PETIT JURY.—This is a jury which hears testimony for and against the accused, (if it be a criminal case) and decides whether he is guilty or innocent of the crime charged. It must unanimously agree as to the guilt of a person before sentence can be passed upon him. After an accused person has been acquitted he can not be tried again on the same charge.

In a Justice court a petit jury consists of six persons; in a higher court, of twelve persons. Petit Juries sit in civil as well as in criminal cases.

NOTARIES PUBLIC.—These are appointed by the Governor and confirmed by the Senate. Their term of office is four years. They are authorized to administer oaths, to take sworn statements in writing, called affidavits, and to perform various other duties connected with legal and commercial papers.

REVIEW OUTLINE.

DEPARTMENTS.

1. Executive. 2. Legislative. 3. Judicial.

1. EXECUTIVE DEPARTMENT.

I. Object, to enforce the laws.
II. The Governor of the State, the chief officer.
  1. Qualifications for Governor and Lieutenant-Governor.
  2. When and how chosen.
  3. Term of office.
  4. Salary.
  5. Powers and duties.
III. Other executive officers.
  1. Term of office of each.
  2. Salary of each.
  3. Powers and duties of each.

2. LEGISLATIVE DEPARTMENT.

I. Object, to make the laws.
II. Senate.

1. Number of members.
2. When and how chosen.
3. Term of office.
4. Duties.

III. House of Representatives.

1. Number of members.
2. When and how chosen.
3. Term of office.
4. Duties.

IV. The Legislature.

1. Sessions.
2. Powers and duties.
3. Salaries of members.
4. Bills passed, how?

3. JUDICIAL DEPARTMENT.

I. Object, to interpret and apply the laws.

II. Courts.

1. Judges—how chosen—term of office of each.
2. Jurisdiction of each court.

III. Juries.

1. Grand Jury—composition and duties of.
2. Petit Jury—composition and duties of.
3. Drawing of jurors.

IV. Notaries Public—duties of.

SECTION II—COUNTIES AND TOWNSHIPS.

COUNTIES.

It would not be possible for the different State departments to attend to the public business, and the special wants of every part of the State. The State is accordingly divided into counties, and officers are appoined in each county to attend to its more immediate interests.*

COUNTY SEAT.—In every county, some town is selected where the business of the county is transacted. This is called the county seat. Here there is a court house, a jail, county offices and other public buildings.

*There are eighty-four counties in the State, fifteen of which are in or near the Upper Peninsula.

COUNTY OFFICERS.—At the general election, when State officers are elected, the following county officers are also elected: Sheriff, Clerk, Treasurer, Register of Deeds, Prosecuting Attorney, Surveyor, Coroners, Circuit Court Commissioners, Probate Judge. These officers, with the exception of Probate Judge, are elected for two years.

THE SHERIFF.—The sheriff is the principal executive officer of the county. He is required to preserve peace and good order within the county; to attend all sessions of the Circuit Court, and preserve order in the court room, and execute all writs and orders of the court, and to take charge of the county jail. The sheriff appoints an under-sheriff and deputies to assist him in the performance of his duties.

CLERK.—The County Clerk is the clerk of the Board of Supervisors, and is also clerk of the Circuit Court when it is held within the county. He is required to keep a journal of the proceedings of the Circuit Court, and preserve all books and papers belonging to the office. He issues marriage licenses, and keeps a record of the births, deaths and marriages within the county, besides performing various other duties.

TREASURER.—The County Treasurer receives and has charge of all the money belonging to the county. He receives from the Township Treasurers the State tax, and pays it over to the State Treasurer. He also conducts the annual sale of lands on which the taxes have not been paid.

REGISTER OF DEEDS.—It is the duty of the Register of Deeds to keep a register of all deeds, mortgages and other papers relating to real property and which are required by law to be recorded. In this way it can be readily ascertained when property is mortgaged, and to what extent, and whether the legal title is good or not. All transfers of property and legal instruments are in this way preserved, and can easily be referred to at any time, by interested parties.

PROSECUTING ATTORNEY.—The Prosecuting Attorney is the legal officer of the county. It is his duty to prosecute all

persons who have been guilty of any crime within the county, give legal advice to county officers in matters relating to their duties when so requested, and prosecute and defend all suits in the county in which the county is interested.

Surveyor.—The Surveyor makes such surveys in the county as are required. He determines the location and boundaries of lands, and keeps a record of all surveys made. All surveys are required to be made in accordance with certain principles established by law, so that there may be a uniform system in the several counties of the State.

Coroners.—Two Coroners are elected in each county to investigate the causes of all sudden and suspicious deaths within the county. Coroners are sometimes required to perform the duties of a sheriff. This is when the sheriff is an interested party in a suit.

Circuit Court Commissioners.—In each county of the State there is a Circuit Court Commissioner, and in some of the more prosperous counties there are two. They are authorized to perform many of the duties that a Circuit Judge would be obliged to perform, if it were not for their assistance.

Probate Judge.—See Judicial Department.

Board of Supervisors.—In each county there is a Board of Supervisors, consisting of one from each township and one from each ward of a city. The Board of Supervisors is a legislative body. The Supervisors have the general care and supervision of the county buildings; provide for the raising of money to meet the current expenses of the county; fix the salaries of certain county officers; apportion the State and county tax among the several townships; equalize the taxes among the townships of the county; examine and settle all claims against the county; divide the county into representative districts, and form new townships and alter the boundaries of others. Supervisors are elected for one year.

Superintendents of the Poor.—In every county three Superintendents of the Poor are elected by the Board of Supervisors. They have the care of the poor of the county,

the general management of the county poor-house, and are also inspectors of the jails.

RECAPITULATION.

COUNTY OFFICERS.

- EXECUTIVE
  - Sheriff.
  - Clerk.
  - Treasurer.
  - Register of Deeds.
  - Prosecuting Attorney.
  - Surveyor.
  - Coroners.
  - Superintendents of the Poor.
- JUDICIAL
  - Circuit Judge.
  - Circuit Court Commissioners.
  - Probate Judge.
- LEGISLATIVE—Board of Supervisors.

TOWNSHIPS.

Each county is divided into townships. The township is the smallest division of our political system. (A ward in a city corresponds to a township in the county.)

MEETINGS.—The annual meeting of each township is held on the first Monday in April, at which time officers are elected, money is appropriated to meet the expenses of the township, and matters of interest connected with the township are discussed. Special meetings may be called by the Township Board.

OFFICERS.—The following township officers are elected annually, excepting the Justices of the Peace, who are elected for four years, and School Inspector and Drain Commissioner, who are elected for two years; Supervisor, Clerk, Treasurer, School Inspector, Highway Commissioner, Drain Commissioner, Justices of the Peace, Constables.

[Learn the powers and duties of each of the above.]

Township officers do not receive a salary, but are paid for each day necessarily devoted by them to the service of the township.

SECTION III—CITIES AND VILLAGES.

CITIES.

A city is a corporate town, governed by a Mayor and a Board of Aldermen, called a Common Council. A city is said to be incorporated when certain powers are conferred upon it by the Legislature. The instrument by which it is incorporated is called a charter. A charter is really the constitution of the city, as it defines the duties and powers of the city officers and of the Common Council.

Officers.—In all cities, two classes of officers are elected:

1. City Officers.
2. Ward Officers.

The City Officers are: Mayor, Clerk, Treasurer, Comptroler, Marshal, Director of the Poor.

Mayor.—The Mayor is the chief executive officer of the city. He stands in about the same relation to the city that the Governor does to the State. It is his duty to look after the general interests of the city, and see that the laws of the city, and the ordinances and regulations of the council are enforced. He is the presiding officer of the council, and he is required from time to time to give information to them concerning the affairs of the city, and to recommend such measures as he may think best. In order to keep peace and good order within the city, he may exercise the powers conferred upon a sheriff, and summon to his assistance all able-bodied men in the city.

Clerk.—The Clerk is required to keep a record of the proceedings of the Common Council, preserve all books, papers and records of the city, and countersign and register all city licenses. He also keeps a record of chattel mortgages, and is the custodian of all bonds. He also keeps the seal of the city.

Treasurer.—The Treasurer receives and has charge of all money belonging the city, and keeps an account of all receipts and expenditures.

COMPTROLLER.—The Comptroller is the general accountant of the city; he examines all claims against the city and reports them to the Common Council for payment, and keeps an account of all money received and paid out by the Treasurer.

MARSHAL.- The Marshal has the general care of the highways, streets and sidewalks. He is also authorized to abate nuisances.

DIRECTOR OF POOR.—The Director of Poor must look after the poor of the city and provide assistance when necessary.

WARD OFFICERS.—The city is divided into smaller divisions, called Wards. In each ward the following officers are elected: Supervisor, Constable, Collector, two Aldermen.

The *Supervisor* in each ward makes a list of all persons liable to be taxed, with a correct valuation of their property. The *Collector* in each ward collects these taxes.

Constables are required to obey all lawful orders of the Mayor, Aldermen and Justices of the Peace.

Two *Aldermen* are elected in each ward. The Aldermen are members of the Common Council.

COMMON COUNCIL.—The Mayor and Aldermen constitute the Common Council. This is the legislative body of the city, and has the power to pass such ordinances and regulations as the interests of the city seem to demand.

OTHER OFFICERS.—Certain officers are appointed by the Common Council; these are—

1. City Attorney, who is the legal adviser of the Common Council and city officers.

2. City Surveyor, who makes all official surveys within the city limits.

3. City Physician, who is the medical attendant of the poor of the city.

4. Highway Commissioners, who repair damages to streets, etc., and also see that the streets are kept clean.

Boards.—In large cities where there is too much business for the ordinary city officers, boards are selected who attend to special duties.

Board of Equalization and Review.—Its members are elected by the people. They see that the taxes are properly assessed; they also make assessment rolls for street improvements.

Board of Police and Fire Commissioners.—Members are appointed by the Mayor and common council. They have the general supervision of the police and fire departments.

Board of Public Works.—Members are appointed by the Mayor. They have charge of the public improvements of the city, as the building of bridges, improvements of water works, grading of streets, etc.

Board of Health.—Members are appointed. They look after the sanitary condition of the city.

Board of Education.—Its members are elected by the people. They have the general supervision of the public schools.

VILLAGES.

A village may be said to occupy a place midway between a city and a township. The powers conferred upon a village are not as extensive as those conferred upon a city, while, on the other hand, a village exercises greater powers than are exercised by a township. Villages are smaller than cities and are not divided into wards. They are governed by a President and six trustees. The officers elected in a village are: President, Clerk, Treasurer, Street Commissioners, Assessor, Constable, and Trustees.

[Give the powers and duties of each.]

As cities and villages are incorporated by a special act of

the Legislature, they will necessarily vary somewhat in the number of their officers, their powers, and the mode of selecting them. In some cities certain officers are elected who in other cities are appointed by the Common Council. A copy of the city or village charter should be obtained and comparisons made with the foregoing statements.

RECAPITULATION.

CITY OFFICERS.

- Executive:
  - Mayor.
  - Clerk.
  - Treasurer.
  - Comptroller.
  - Marshal.
  - Street Commissioner.
  - Attorney.
  - Surveyor.
  - Director of Poor.
- Judicial:
  - Justices of the Peace.
  - Polioe Court Judge.
  - Superior Court Judge.
- Legislative—Common Council.
- Ward Officers:
  - Supervisor.
  - Constable.
  - Aldermen.

SECTION IV—ELECTIONS AND TAXES.

ELECTIONS.

Elections are held at specified times for the purpose of choosing State, district, county, township, city and village officers. Severe penalties are enacted for the punishment of bribery, tampering with ballots, or ballot-boxes, illegal voting, selling and giving away liquor on election day, and all other means that have for their object the prevention of a full and free expression of the popular will.

The law provides for three regular elections—

1. A general election in November.
2. An April election.
3. A March election.

Fall Election.—Once in two years, on the Tuesday following the first Monday in November, a general election is held throughout the State, at which the people choose by ballot their Governor, Lieutenant-Governor and other State officers, members of the Legislature, Representatives in Congress, and all county officers. The President and Vice-President are also chosen at this time every four years.

April Election.—On the first Monday in April, in each organized township, village or city, the people elect their city and township officers. Judges of the Supreme and Circuit Courts, and Regents of the State University are elected at the April election.

March Election.—On the second Monday in March of each year occurs the election of village officers.

Suffrage.—Persons who have the right to vote are called electors. To be entitled to vote, a person must be twenty-one years of age, and have resided in the State three months, and in the township or ward where he offers his vote, the ten days next preceding the election.

Persons born in other countries are called aliens, and before they can vote, they must either become citizens, or declare their intentions to become citizens. They may vote after living in the State two and one-half years, having declared their intention to become citizens six months previous to the election.

Paupers, insane persons, and idiots are not allowed to vote, since they are not capable of acting for themselves. Criminals cannot vote during their imprisonment.

Boards.—Certain Boards are designated by law to superintend the registration of voters, and to receive and canvass the votes cast for the various officers. These are—

1. Boards of Registration.
2. Inspectors of Election.
3. County Canvassers.
4. District Canvassers.
5. State Canvassers.

[What are the duties of each ?]

REGISTRATION.--Every voter is required by law to have his name properly registered in the election district in which he resides, before he is permitted to vote. Previous to an election, the proper officers meet to record the names of all qualified voters who present themselves for registration.

TAXES.

Money is necessary to pay the ordinary expenses of municipal, township, county and state governments, and the salaries of officers; to erect public buildings, establish and repair roads, build bridges and school houses, support schools, etc. For this purpose taxes are levied in such a way that each one pays in proportion to the value of his property.

HOW TAXES ARE LEVIED.—An estimate is made by the proper officers of the amount of money required. They then sum up the estimates made by the assessors of the value of the property liable to be taxed. From these data they ascertain the percentage of tax that must be collected from each person.

PROPERTY EXEMPT FROM TAXATION.—Certain property is not subject to taxation. This includes United States property; state, county, township, city and village property; certain property of individuals; churches and school houses, and the property of all benevolent, charitable and scientific institutions.

TIME OF COLLECTION.—The time fixed for the collection of taxes begins in the month of December of each year. At that time it is the duty of every person owning taxable property to go to the proper officer and pay the tax. It is not the duty of the officer to demand it.

If a person refuses or neglects to pay his taxes, as much of his property is sold as is necessary to pay them.

If taxes are not paid before the first of January, four per cent. is added for collection dues.

PART V.—HISTORY.

Michigan derives its name from the two Chippewa words, *Mitchaw*, great, and *Lagiegan*, lake, which signify, the country of the great lakes. This is a very appropriate name, since Michigan is almost surrounded by lakes, and contains more than 5,000 smaller interior ones.

The aborigines of Michigan were Indians, of whom most in the southern peninsula were Ottawas and Potawatamies, and in the northern peninsula were Chippewas and Menominees. It is an interesting fact to us, that every spring after the hunt, large numbers of Indians from all over the State met in the valley of the Owashtanong, which is now Grand River, and held their annual feast or pow-pow.

MICHIGAN UNDER FRENCH RULE, 1610–1760.

Michigan was visited as early as 1610 by French missionaries and fur traders of Canada, though no settlements were made at that time.

FIRST SETTLEMENTS.—In 1641, the first bark canoe laden with French Jesuits, paddled through the Ottawa River to the Falls of Ste. Marie. The first permanent white settlement in Michigan, of which there exists any authentic account, was made in 1668, by Father Marquette, the brave missionary and explorer, who founded a mission at Sault-de-Ste-Marie for the purpose of converting the Indians.

In 1671, Father Marquette founded the mission of St. Ignatius or St. Ignace, on the north side of the Straits of Michilimackinac, and soon after Fort Mackinac was established on the south side of the Straits.

In 1679, LaSalle, a famous explorer, sailed through the great lakes in the *Griffin*, the first vessel that ever passed through them; and established Fort St. Joseph at the mouth of the St. Joseph river.

Detroit, the most important of all the early settlements, was founded in 1701, by a French priest named La Motte Cadillac. The actual settlement of Michigan, for the purpose of colonization and civil government, dates from this time.

Forts were established by the French traders for the purpose of exchanging goods with the Indians for furs. The French missionaries established missions or churches near the trading posts, where they preached to the Indians. All the forts and missions were rude buildings of logs, in most cases surrounded by a stockade. The inhabitants were soldiers, workingmen and priests, sent out by the French to build up the trading posts.

The labors of the French missionaries in these wild regions added much to the knowledge of the geography of the country, and their religious teachings, no doubt, did much to soften the savage nature of the Indians. Father Marquette was one of the most noted of these early missionaries. After establishing the settlement in Michigan, he explored the Mississippi River to the mouth of the Arkansas. He returned by the way of the Illinois River, where he stopped to preach to the Indians. They wished him to remain with them, but his strength was failing and he hurried towards home. He died at the mouth of the Pere Marquette River and was buried on its banks by his Indian guides. Two years later his body was removed to Point St. Ignace by a party of his Indian converts.

French and Indian War, 1754–1760.—During the whole period of French control, extending from the first settlement of the country down to the year 1760, the northwest territory was a vast ranging ground for the numerous tribes of Indians that roamed over it in savage independence. It was the theater for most of the important military operations of the French soldiers at the west, and for the Jesuit missionaries who strove to gain the influence of the red men in behalf of their government as well as their church by converting them to the Catholic faith.

Both the French and British in many places laid claim to the same territory, and quarrels arose which finally resulted in the French and Indian War, so-called because the French and Indians fought together against the British. The British were victorious, and, in 1760, the French were obliged to give up to them all their trading posts along the lakes (Ste. Marie, Mackinac and St. Joseph).

The territory had belonged to France for 150 years, and had been the sites of missions for 90 years. During all these years the colonists had been loyal to France. The Indians had profited by the skill of their neighbors and could in times of peace raise sufficient food, and their other needs were supplied through the barter of furs. A hundred years had done less to settle and improve the country than is now often accomplished by some little colony in Dakota during a single year. It was the end of French rule, and it had proved fatal to all real progress.

MICHIGAN UNDER BRITISH RULE, 1760–1796.

The British had possession of Michigan from 1760 until 1796, although by the treaty at the close of the War of the Revolution (1783) it had been ceded to the United States The change of possession intensified the hostility of the savage. The British were haughty and overbearing, and showed plainly that they felt no friendship for the Indians.

The French traders had kept their eager desire for wealth within bounds, so as to retain the good will of the Indians; and some of the new traders were disposed to deal fairly. But others of the British, to use the words of Parkman, the historian, "were ruffians of the coarsest stamp, who vied with each other in rapacity, violence and profligacy. They cheated, plundered and cursed the Indians, and outraged their families, offering, when compared with the French traders who were under better regulation, a most unfavorable example of the character of their nation."

The result can readily be forseen: The Indians had been

the natural ally of the French, and both were ready to do anything to restore French dominion.

In 1763, with Pontiac for a leader, the Indians formed a plan to drive all the British from the country.

PONTIAC'S WAR, 1763.—Pontiac was one of the most noted Indians in the history of Michigan. He was remarkable for his shrewdness and bravery, and for his influence over his tribe. He was an effective speaker, and a bold and crafty warrior, and was well fitted in every way to be the leader in the uprising against the English.

He was an Ottawa chief and formerly an ally of the French. His home was about eight miles above Detroit. Possessed of savage strength and energy, greatly esteemed by both French and English, and having greater influence than any other individual among the lake tribes, this daring chief prepared to dispute the British claims to the territory of the lakes.

Pontiac's plan was to attack all the British posts west of the Alleghany mountains at about the same time. The Indians were to massacre all the soldiers at the garrisons, and thus, at a single stroke, they hoped to rid themselves of the people whom they hated. The plan included a line of trading posts scattered from Niagara to Chicago, twelve in all, three of which (St. Joseph, Michilimackinac and Detroit) were in Michigan. Pontiac appointed different chiefs to lead the attacks on the several posts, reserving the attack on Detroit for himself.

DETROIT, MAY 7, 1763. Pontiac's first attack on Detroit was a failure, because the plan of the attack had been betrayed to the commander of the fort by an Indian girl. The Indians entered the fort as though to make a friendly visit and were, to all appearances, unarmed, having concealed their weapons under their blankets. It had been arranged that Pontiac should make a speech to Major Gladwyn, and in the midst of it give a signal to his warriors who

were to strike down all the officers of the fort, and then the massacre was to be continued by the bands of savages who were waiting outside the fort. When the Indians entered the fort they found the soldiers armed and on their guard, so Pontiac made a very brief speech, expressing great friendliness toward the English and then he and his followers withdrew.

Two days later the Indians began a siege of Detroit which lasted from early May until October. Towards the end of October the provisions in the fort became nearly exhausted, but a scarcity arose among the Indians at about the same time and they were obliged to raise the siege and go on their annual hunt.

St. Joseph, May 25, 1763.—Fort St. Joseph was held by fifteen men. In May a band of Potawatamies gained admission to the fort, through pretended friendship, and massacred all except the commander and three men.

Michilimackinac, June 2, 1763.—Mackinac was taken by strategem. The Indians began a game of ball outside the fort, and when the soldiers had become interested in watching the game, the ball was thrown inside the stockade apparently by mistake. The players rushed after it and once inside, were furnished with weapons by squaws, who had strolled into the fort with the tomahawks hidden under their blankets. More than half the soldiers of the garrison were massacred and the rest taken prisoners.

During the six months that followed the attacks on the forts, hundreds of families were murdered or driven from their homes. At the end of that time more British troops arrived and put an end to the war. Pontiac fled to Illinois where he was assassinated by an Indian who, it is said, had been bribed by a British trader to commit the deed for a barrel of whisky.

On account of the Indian troubles the condition of Michigan did not improve for a long time. There were no roads

except along the river below Detroit, and little was known of the interior except to the fur traders and the Indians.

The Revolutionary War, 1775–1783.—The Revolutionary war broke out in 1775, but Michigan, on account of her remote position, took no part in it. No battles were fought within her boundaries, although there was some trouble on the frontier. The war lasted for eight years, and at the end of that time the independence of the United States was acknowledged by England. The British, however, held many of the forts until 1796, when Michigan was given over to the United States, and included in what is known as the Northwest Territory.

MICHIGAN UNDER AMERICAN RULE, 1796–1813.

The territory northwest of the Ohio river was claimed by several of the eastern states, on the ground that it was included within the limits indicated by their charters from the English Crown. These states patriotically surrendered their claims to the territory, to aid in the payment of the national debt.

In 1787 a government was organized for this region, which received the name Northwest Territory. It embraced the present states of Ohio, Indiana, Illinois, Wisconsin and Michigan.

The settlement of Michigan up to this time had advanced but slowly, and it was long after this district came into the possession of the United States, before its character was materially changed. No roads had as yet been constructed through the interior, nor were there any settlements except on the frontier. The habits of the people were military, and but little attention was paid to agriculture, except by the French peasantry.

In 1800 the Northwest Territory was divided into two territories, the one retaining the name Northwest Territory, the other receiving the name of Indiana Territory. The former embraced the eastern half and the latter the western

half of Michigan, the dividing line, north and south, passing near Mackinac. At this time Detroit contained about three hundred houses. The only cultivated lands were contained in a strip three miles wide, bordering on the Detroit river and the lakes, except a few hundred acres about Mackinac. More than three-fourths of the population were French, and Catholics in religion. Two-thirds were males.

In 1803, Ohio was admitted to the Union, and all of Michigan became a part of Indiana Territory, and so continued until 1805, when it was organized as a separate territory, with Detroit as the seat of government.

President Jefferson appointed General Wm. Hull Governor of the Territory, and he reached Detroit July 1, 1805. He was an officer of the Revolution, but at the age of fifty-two was entirely unfitted for the duties required on the western frontier.

Just before the arrival of Governor Hull, the little town of Detroit had been entirely consumed by fire. The people were encamped in the fields with scanty food and little shelter, but they were not discouraged by the misfortune which had befallen them, and at once began to rebuild the city. In rebuilding, the city was laid out on the handsome and extensive plan which has since been carried out.

War of 1812.—After Pontiac's war there was no serious trouble with the Indians for nearly fifty years, or until the year 1811. In the latter part of that year the tribes again united with Tecumseh, a Shawnee chief, for their leader. The Indians had been roused to war by British agents, who wished to have their help in the war which was threatened between England and the United States. Tecumseh's plan was similar to Pontiac's: to simultaneously attack the forts and to unite the tribes from New York to the Mississippi. When the Americans learned that Tecumseh was planning to attack their forts, they collected troops in Ohio and put them under the command of General Hull. They started to march to

Detroit, and while on their way received news from Washington that war had been declared between England and the United States. This was the war of 1812.

The Americans deciding to invade Canada, General Hull crossed the Detroit River and began making preparations to attack some of the Canadian forts. In the midst of his preparations, he learned that the British and Indians were planning an attack upon his forces, and he hastily retreated to Detroit.

Surrender of Detroit, 1812.—Detroit was attacked by the British and Indians under Generals Brock and Tecumseh. As the British marched to attack the fort, the Americans expected every instant the order to fire, but General Hull seemed to loose all presence of mind. While his men, it is said, wept at the disgrace, he raised the white flag and surrendered to the British. This was a surrender not of Detroit alone, but of the whole of Michigan.

General Hull was accused of treason, cowardice and criminal neglect of duty. He was acquitted of the first charge, but convicted of the second and third, and sentenced to be shot. He was pardoned, however, by the President of the United States, in consideraiion of his services during the Revolutionary War.

The recovery of Detroit was effected by the brave Commodore Perry, and Tecumseh was slain not long after in the Battle of the Thames.

Tecumseh possessed a noble figure and was distinguished by moral traits above his race. He acquired unbounded influence, and placed himself far above all others as a champion of Indian rights. During the last years of his life he was almost constantly at the head of warlike bands, and he sank at last on the field of glory with tomahawk in hand and the cry of battle on his lips. With the death of Tecumseh, the confederacy dissolved and peace was concluded with the various tribes.

The island of Mackinac remained in possession of the

British until the treaty of peace was signed at Ghent, in 1815.

MICHIGAN TERRITORY UNDER GOVERNOR CASS, 1813–1831.

On the surrender of Detroit, Colonel Lewis Cass, with his regiment, had been left in charge of the post. In 1813 he was appointed Governor, and Michigan Territory now began a new existence, and advanced greatly in prosperity.

Governor Cass was a native of New Hampshire, and at the age of seventeen he had settled at Marietta, Ohio. After receiving a liberal education he had become a lawyer, had been a member of the Legislature, and Marshal of the State of Ohio. He had served with courage and success through the war. Above all, from habits and training, he was familiar with the needs of the people. No man in the Northwest was better qualified to deal with the Indian. Under him, the Government acquired, by various treaties, all lands south of Grand river to the headwaters of Thunder Bay river, as well as such as were required to make the posts at Mackinac and elsewhere safe for the future.

The British had offered few inducements for immigration, and thus far the beautiful oak openings along the Kalamazoo, the fertile tracts along the Grand river, the prairies of the St. Joseph and the slopes along the banks of Lake Michigan were traversed only by the wild beast and the savage.

With the introduction of steam navigation upon the inland seas, a new era commenced. This was in 1818, when "Walk-in-the-Water" made its appearance at Detroit, and passed up to Mackinac the next year. The savages were made to believe that it was drawn by a team of trained sturgeons.

The population of Michigan at this time (1820) was 8,896. The settlers extended themselves along the banks of the rivers Raisin, Huron and St. Clair, and cleared the forests from the spots where now stand the towns of Ann Arbor, Ypsilanti, Pontiac, Jackson and Tecumseh.

The first printing press was brought to the territory in 1809, and a little paper called the "Michigan Essay and Impartial Observer" started, but it had a brief existence. In 1817 the "Detroit Gazette" was begun, followed soon after by other journals at Ann Arbor, Monroe and Pontiac.

"The great event of the period, however, and that which had most to do with giving sudden impetus to the growth of Michigan, and bringing to it the population that shortly had planted settlements and reared churches and school houses all through its central and southern parts, was the opening in 1825 of the Erie Canal. It was not long after this before steamers were abundant on the lakes; no less than seven on Lake Erie in 1826, and four years thereafter a daily line was running between Detroit and Buffalo."*

In 1830 the population had risen to 31,639, and the territory was self-supporting.

In 1831 Governor Cass was called to the cabinet of President Jackson, and resigned the position of Governor which he had so ably filled for eighteen years.

The people began to talk of the coming State. The stream of immigration continued to pour in, the major part coming from New England, New York and Ohio, and in 1832 the State had more than 60,000, the number required to entitle a territory to admission as a state; but other matters demanded attention, and it was not until after the census of 1834, which showed a population of 87,278, that Congress was memorialized to set off the western territory from Michigan.

In April, 1835, a state convention agreed upon a constitution and the people approved of it in October.

TOLEDO WAR, 1835–1837.

This action excited a boundary controversy with Ohio which threatened serious consequences. The dispute is

*Cooley.

called the Toledo War, because the strip of land in question* took in part of the Maumee River and Bay where the city of Toledo now stands. So much excitement prevailed that both parties sent a military force to the disputed frontier and several shots were exchanged, but there was no bloodshed.

Congress decided in favor of Ohio, and gave to Michigan what is now the Upper Peninsula, whose wealth at that time was unknown.

Michigan was admitted in 1837, and Stevens T. Mason was elected the first Governor. The existing laws were reframed, new laws were enacted and a plan of public instruction was adopted for the diffusion of education among the people.

In 1847, the seat of government was changed from Detroit to Lansing.

MICHIGAN IN THE CIVIL WAR.

The action of Michigan during the late civil war was highly creditable to her patriotism. She sent to the field 90,747 able-bodied men, or more than one-ninth of her population. During the four years of the war, 357 commissioned officers and 14,466 enlisted men fell in defence of their country.

From the beginning to the close of the war, Michigan troops bore the reputation of being among the bravest and best disciplined in the army; and there were very few of the more important engagements where Michigan troops were not present, and where her regiments were not conspicuous for the efficient aid they rendered.

The State, counties, towns and cities paid during the war for bounties, for premiums, for recruits, for relief of soldiers, families and other war purposes, $16,548,992, besides liberal appropriations by the State and numerous gifts by the citizens for disabled, wounded and destitute soldiers. And since the

* The disputed territory was about five miles in width at the west and eight miles at the east end.

war, the State has shown its gratitude to the soldiers by erecting, for those who need it, a Soldiers Home, where destitute survivors may be cared for.

RANK OF MICHIGAN AMONG THE STATES, 1880.

The following table gives the rank of Michigan among the States according to the census of 1880:

	RANK
Area in square miles, 58,915	11
Area of land surface, 57,430	11
Area of water surface, 1,485	12
Population, 1,636,937. (In 1884, 1,853,658)	9
Density of population, 26.5 per square mile	17
Native born population, 1,248,429	16
Foreign born population, 388,508	7
Indian population, 7,240	3
Males of voting age (21 and over), 467,687	8
Teachers in schools, 8,608	8
Pupils attending schools, 362,459	8
Value of school property, $8,982,344	8
Outlay for school purposes, $3,112,468	8
Persons over 10 years unable to read, 47,112	7
Number of families, 336,973	8
Average number in a family, 4.86	30
Persons to a square mile, 28.5	21
Number of pounds of butter made, 38,821,890	6
Number of pounds of wool, 11,858,497	3
Number of bushels of wheat, 35,532,543	4
Number of bushels of corn, 32,461,452	12
Number of bushels of oats, 18,190,793	9
Number of bushels of barley, 1,204,316	9
Number of bushels of rye, 294,918	15
Number of bushels of buckwheat, 413,062	4
Number of bushels of potatoes, 10,924,111	4
Number of pounds or hops, 266,010	4
Number of sheep, 2,189,389	4
Number of horses, 378,778	10

	RANK
Value of copper mined, $7,979,232	1
Value of iron ore mined, $6,034,648	1
Value of salt, $2,271,913	1
Value of lumber, $52,449,928	1
Annual mortality	7

LIBRARY OF CONGRESS
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